

25c

Foreign 35c

AMERICAN

CINEMATOGRAPHER

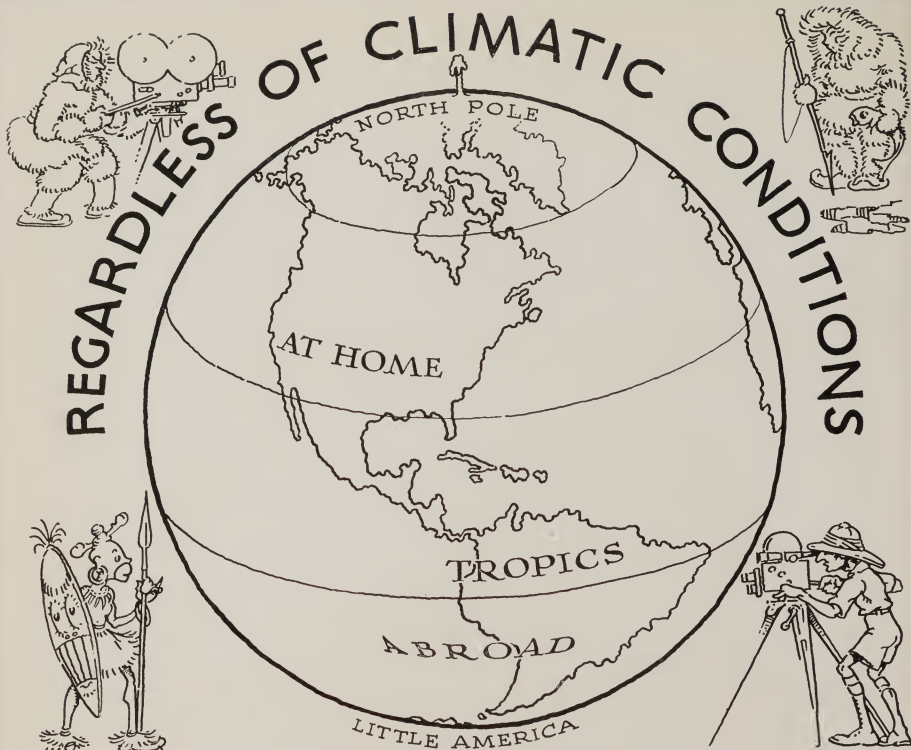
The Motion Picture CAMERA Magazine



May, 1937



Published in Hollywood,
by
American Society
of Cinematographers



REG. U. S. PAT. OFF.

SUPERIOR PANCHROMATIC

gives SUPERIOR RESULTS

DUPONT FILM MANUFACTURING CORPORATION
INCORPORATED

35 WEST 45TH ST., NEW YORK CITY

PLANT . . . PARLIN, N. J

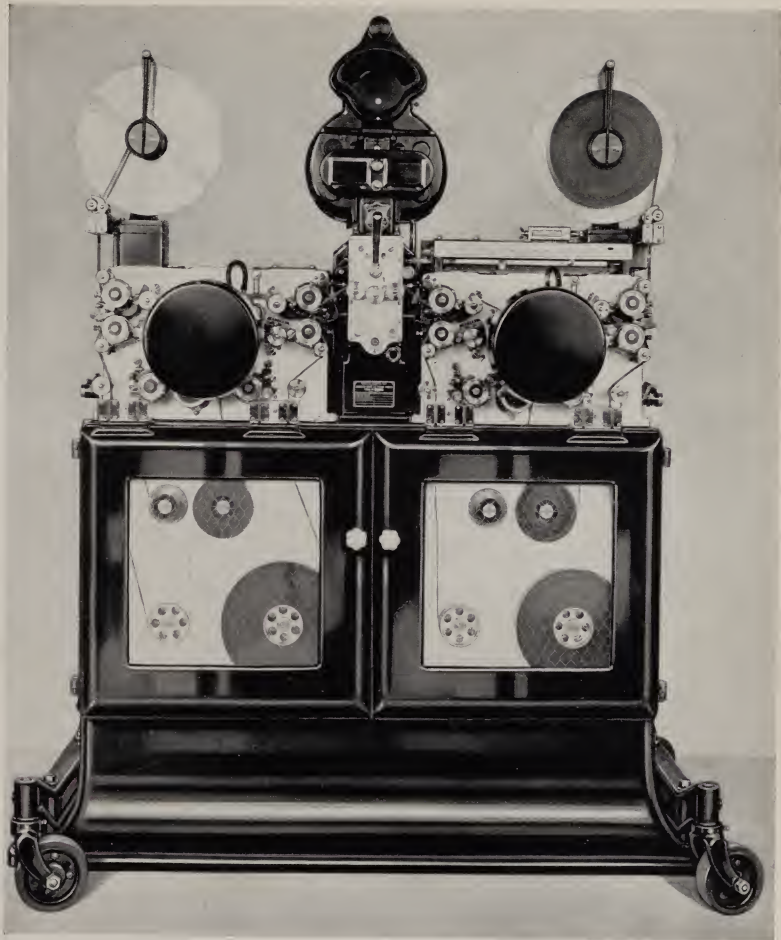
SMITH & ALLER, LTD.

6656 SANTA MONICA BLVD., HOLLYWOOD, CAL.



BETTER THINGS *for* BETTER LIVING *through* CHEMISTRY





Competitive tests put Bell & Howell Production Printers in leading studios
such as Metro-Goldwyn-Mayer, Paramount Pictures, and Columbia Pictures.

BELL & HOWELL COMPANY

1848 LARCHMONT AVENUE, CHICAGO

NEW YORK: 11 W. 42nd St. • HOLLYWOOD: 716 N. La Brea Ave. • LONDON: 13-14 Great Castle St.



AIM FOR BETTER RESULTS!

ONE characteristic of a good negative is fineness of grain. Agfa Superpan offers you supersensitive speed, wide latitude and unparalleled emulsion quality, together with a remarkable fineness of grain.

Made by Agfa Ansco Corporation in Binghamton, N. Y.

C. KING CHARNEY,
INCORPORATED

HOLLYWOOD
6372 Santa Monica Blvd.
Tel. Hollywood 2918-2919

NEW YORK
245 W. 55th Street
New York City



AMERICAN CINEMATOGRAPHER

A Technical and Educational publication
on motion picture photography.

Published monthly by the
AMERICAN SOCIETY
OF CINEMATOGRAPHERS, INC.
1782 N. Orange Drive
Hollywood, California

Telephone GRanite 2135

JOHN ARNOLD, President, A.S.C.
FRED W. JACKMAN, Treasurer, A.S.C.

Vol. 18

May, 1937

No. 5

Contents

AS MIDNIGHT Sounds By George Blaisdell.....	177
STUMAR Directs Shaw.....	179
BLUE RIBBON for RKO.....	180
ARNOLD AGAIN Heads Cinematographers.....	182
THE MOVIE—Uncle Sam's International Salesman.....	182
ASC MEMBERS on Parade.....	184
HOW COLOR Was Made at Last Coronation By W. T. Crespinel.....	186
JONES DEVELOPS Focus Shift for B-H Camera.....	188
HOW LIGHTING Units Are Developed Today.....	189
HARRY PERRY Talks to Pilots on Air Photography.....	190
DEATH OF Ernest Cousin, Beloved French Camerist.....	191
NEW Burroughs Wellcome Diary Out.....	192
FIRST MOVIES Really Were "Stupendous".....	196



ESTABLISHED 1918. Advertising Rates on application. Subscription: U.S. \$2.50 a year; Canada, \$3.50 a year; Foreign \$3.50 a year. Single copies, 25c; back numbers, 30c. Foreign single copies, 35c; back numbers, 40c. COPYRIGHT 1937 by American Society of Cinematographers, Inc.



The Staff

EDITOR

George Blaisdell

TECHNICAL EDITOR

Emery Huse, A. S. C.

ADVISORY EDITORIAL BOARD

Victor Milner, A. S. C.
James Van Trees, A. S. C.
Fred W. Jackman, A. S. C.
Farciot Edouart, A. S. C.
Fred Gage, A. S. C.
Dr. J. S. Watson, A. S. C.
Dr. L. A. Jones, A. S. C.
Dr. C. E. K. Mees, A. S. C.
Dr. W. B. Rayton, A. S. C.
Dr. Herbert Meyer, A. S. C.
Dr. V. B. Sease, A. S. C.

CIRCULATION MANAGER

L. Graham

FOREIGN REPRESENTATIVE

Georges Benoit, 100 Allée Franklin,
Pavillons-sous-Bois, Seine, France. Tele-
phone LeRaincy 13-19.

NEW YORK REPRESENTATIVE

S. R. Cowan, 19 East 47th St., New York
City. Phone Plaza 3-0483.

Neither the American Cinematographer nor the American Society of Cinematographers is responsible for statements made by authors. This magazine will not be responsible for unsolicited manuscripts.

THE AMERICAN SOCIETY OF CINEMATOGRAPHERS was founded in 1918 for the purpose of bringing into closer cooperation all those leaders in cinematography who strive for pre-eminence in artistic perfection and technical mastery; to further the artistic and scientific advancement of the cinema and its allied crafts through unceasing research and experimentation as well as through bringing the artists and the scientists of cinematography into more intimate fellowship. Its membership is composed of the outstanding cinematographers of the world, with Associate and Honorary memberships bestowed upon those who, though not active cinematographers, are engaged none the less in kindred pursuits, and who have by their achievements contributed outstandingly to the progress of cinematography as an art and as a science. To further these lofty aims and fittingly to chronicle the progress of cinematography the society's publication, The American Cinematographer, is dedicated.



RESEARCH COMMITTEE

Victor Milner, George A. Mitchell, Dr. Herbert Meyer, John Arnold, Párclet Edouart, Emery Huse

AMERICAN SOCIETY OF CINEMATOGRAPHERS

OFFICERS

JOHN ARNOLD.....President
VICTOR MILNER...First Vice President
CHARLES LANG...Second Vice President
JAMES VAN TREES...Third Vice Pres.
FRED W. JACKMAN.....Treasurer
FRANK B. GOOD.....Secretary

BOARD OF GOVERNORS

John Arnold	Fred W. Jackman
Elmer Dyer	Ray June
Arthur Edson	Charles B. Lang, Jr.
George Folsey	Victor Milner
Alfred Gilks	Ted Tetzlaff
Bert Glennon	James Van Trees
Frank Good	Joseph Walker
	Vernon L. Walker
	Frederick L. Kley, Executive Business Manager

PAST PRESIDENTS

Philip E. Rosen	Hal Mohr
Gaetano Gaudio	Homer Scott
James Van Trees	John F. Seitz
John W. Boyle	Daniel B. Clark
	Fred W. Jackman

PUBLIC RELATIONS COMMITTEE

John Arnold
Charles Bell, St. Paul, Minn.
Georges Benoit, Paris, France
John W. Boyle, London, England
Ariel Vargas, Tokyo, Japan
Charles W. Herbert, New York City
Lloyd Knechtel, London, England
John Dored, Vienna, Austria
Max B. DuPont, Papeete, Tahiti
Philip M. Chancellor
Reed N. Haythorne, Washington, D. C.
Paul Perry, Buenos Aires

MEMBERSHIP COMMITTEE

George Folsey	Ted Tetzlaff
	Alfred Gilks

ENTERTAINMENT COMMITTEE

Elmer Dyer	Frank B. Good
Charles B. Lang, Jr.	Vernon Walker
	Arthur Edson

WELFARE COMMITTEE

Ray June	James Van Trees
	Fred W. Jackman

GENERAL COUNSEL

Arthur C. Webb

AS MIDNIGHT SOUNDS--

By George Blaisdell

IT'S AN interesting highway, that Boulevard Hollywood, especially after the sun has dropped behind the ocean. From the world around come the peoples of the earth to give the more or less famous thoroughfare the once-over. And many of the natives—there are those who imagine a year's residence qualifies for that classification—emerge then to do their stuff.

That may be merely to parade the highway to see and to be seen, and possibly to be garbed as ordinary sane and sound persons or maybe to be garbed as eccentrics whose imagination has been touched by the sun of Hollywood—just plain nuts. Others may be good business men, men who realize the commercial value of being sufficiently well known to the crowd to be called by name.

In less than an hour on a recent evening three instances of sidewalk entertainers crossed this writer's path. It was around 11 o'clock and must have been on a Friday night, for the crowd was piling into the boulevard from the Stadium fights.

A tall young man with two dogs was putting his well trained pets through their paces. He well may have believed he might attract the attention of a picture executive and for that attention to be translated into an engagement.

It was an unusually interesting performance, one feature of it being the ordering of one of the two black animals to stretch flat on the sidewalk. With the second dog the master then turned his back on the recumbent and whining animal and strolled away. The mate of the detained pup seemed as distressed as the other, unable apparently to make up his canine mind to which one of his friends he would stick. As the crowds gathered the dog behind was forced to follow his master's motions in various antics, audibly begging all the time for permission to rejoin the two. When the delayed signal finally came there were yelps of delight, from both dogs, and indications of genuine relief on the part of the sympathetic bystanders.

At the corner of Vine and the

boulevard there was a crowd around some young man who seemed to be standing on a barrel. For a moment there was a thought of the soapbox come to Hollywood, a soapbox manned by an aspiring actor no longer able to keep his feet on the ground. It may have been an actor, but his eight or more feet of anatomy were planted firmly on the sidewalk. Beside him was a dwarf of maybe three feet and a half of elevation. As the two strolled down Vine street but not arm in arm the crowd followed. The dwarf may have been out of sight to all except those on the inside of the throng, but the giant could be seen blocks away.

Ten minutes later on the south side of the boulevard and moving west was a young man exceedingly indifferent to the stares of the multitude. He carried a walking stick with a curved handle. Strutting and waddling out in front of him a half dozen feet, looking neither to the right nor left and keeping to the center of the sidewalk, was a creature strange even to the eyes of blase Hollywood. Circling its well-rounded belly was a light strap. Penguin it must have been.

The creature from the far south stopped at the Cahuenga curb, as suddenly as an old man searching for a traffic signal. The custodian of the bird, if bird it was, reached down the crook in his walking stick, fastened it under the strap circling the creature's belly and nonchalantly lifted his friend to the crook of his left arm. Thus the two crossed Cahuenga. On the west side the young

man set his friend to the sidewalk. The gaping crowd parted. Proceeding west but swaying with a 45-degree heel to the north and south the antarctic bird started toward the Egyptian, possibly to call on the equatorial monks who live in the forefront of that theatre.

Dr. Nagel Passes

DR. FRANK NAGEL, father of Conrad, rare actor turned radio master of ceremonies and picture director, passed on during the last month. Dr. Nagel was a national authority on music. For many years he was president of the Hollywood Opera Reading Club, in which position he contributed markedly to the knowledge as well as the entertainment of many Hollywoodians. His illness in recent years has meant a distinct loss to the cultural life of the community.

In the days of the beginning of screen sound eight or nine years ago this reporter, then a Variety mugg, wrote an interview with the doctor in which the latter foretold with deep conviction the coming of the time—and not far removed—when the screen would bring famous operas to the multitudes, finely reproduced vocally, with the actors and backgrounds shown in color.

Skeptics there were then, but we know now the doctor was right.

Dr. L. E. Dodd, U.C.L.A.

IN OUR April issue in the caption topping a learned and informing technical article from the hand of Dr. L. E. Dodd, professor in charge of Geometrical Optics, Department of Physics, U.C.L.A., omission was made of the particular institution of learning with which the doctor is affiliated. The offense was aggravated by the fact the said university was identified in the proof submitted.

As usual in such cases while the succeeding ignominy attached to the proceedings may be shared by several, nevertheless it must be shouldered by one. And here it is: Our apologies to the doctor, who with cordiality and magnanimity remarks that otherwise the two

THE EXTRA OF HOLLYWOOD

Extras we're called and such we are,
But if left out you'll get not far!
We're come from all the ends of earth
To do our bit in making mirth. . .
To cheer the dull, to soothe the ill,
And to the jaded bring a thrill;
To paint Mankind since dawn of Time
And show how steep has been the climb;
Give Fancy rein to alter Fate;
To lift the low to high estate;
Impart to King the chance to see
How small he really proved to be.

Through us you'll find the answer turns
On that famed prayer of Bobby Burns:
The Screen's the power the giftie gie us
To see oursel's as ithers see us.

pages accurately reflected his message. It may have been noted by the general reader our April issue appeared in a new dress. Which statement may sound like an attempted alibi. Who would know?



Si Snyder Leaves Us

SI SNYDER, former editor American Cinematographer, two-termer on International Photographer, has resigned from the latter publication. He has left Hollywood, left it flat and left flat his host of friends. "Host" is no figure of speech when talking about this Snyder man, for better men are not made.

He has gone back to Texas, arriving there simultaneously with the flowers of May, and with which he will divide the honors of welcome. In Waco, where he will make his quarters for the present, he will undertake important work. But major jobs are in his line. Just for example, when a young man he conducted with entire success the public relations department of the Jamestown Exposition.

Si Snyder has been a resident of Hollywood for many years. Naturally his leaving us was with deep regret, for here he has many ties. That regret is reciprocated by his friends, whose heartiest good wishes will follow him.



Ralph Ince Passes

THAT was a tragic death of Ralph Ince, his passing at fifty years after a generation of work on stage and screen. It was the close of three of the four members of one family, a father and three sons, all of whom had devoted some of their lives to both divisions of dramatic employment. The connection of the father with the screen was brief, with the stage the length of a long life. John, like his brothers, Tom and Ralph, also actor-director, alone survives. There are a number of men and women now in Hollywood who worked with Ralph thirty years ago at the old Vitagraph in Brooklyn.

His friends remember him as a strapping and they recall one controversy into which the youngster was pitchforked when a noseey Coney Island cop accused him of abusing a woman on the beach, declining to take the word of the troupe he merely was an actor in the pursuit of his job and the woman also was an actor. A camera meant nothing in that cop's restricted life nor was he entirely certain it did in the lives of the boy and girl either. But it did nevertheless, and for many years thereafter—even yet in the life of the girl, for years a resident of Hollywood.

Now It May Be Told

THE Herald-Express of Los Angeles has been printing a story entitled "The First Movies—True Stories of Film Pioneer Days." It is in series form and undoubtedly has been syndicated and sent over the country. It tells of Edward Muybridge and his early experiments under the employment of Governor Stanford, who incidentally spent some four hundred thousand dollars to win a bet of twenty-five thousand that a horse's four feet came off the ground when he broke into a gallop.

It may be of interest, historical of course, to note that among the early experiments or accomplishments with multiple photographs was the exposure and recording of a "strip act," now more commonly referred to in polite circles as a "strip tease." To be sure, such exposure across the intervening sixty years always has been sniffed at and looked upon by the professionally discreet as entirely the act of a most common person.

But times change—and so, too, apparently do conventions. Where Muybridge could have his strip photos bound and sold for \$500, now less than one-hundredth of that sum will secure volumes the contents of which will make that Muybridge thing look like a woman in a bathing suit of the early nineties.

And times change even more than fast. In New York the Gotham, the particular art of which has been devoted to the manifestations of burlesque—under the chaperonage of Abe Minsky as manager—has had its license revoked for the unthinkable period of a year.

In discussing contemplated action seeking to upset the action of the courts Walter Winchell suggested it seemed to be a case of peel and repeat.

Not in vain have some of these sisters not always selected by an eye unerring in its detection of rhythm and contour, nor of charm and general s. a., bared their overexposed but undiminished breasts to the chill midnight winds of what once was known as the Great White Way; not in vain have they turned their broad backs upon the tired b. m. of satiated Manhattan—the action synchronized with a flip of what takes the place of skirts of other years, a flip made famous by the cancan artistes of Maxime's also in the early nineties—but far removed from the then bathing suit.

Plainly Gypsy Rose Lee, who arrived in Hollywood April 20 prepared to take on a contract with Fox, never

could have been described as miscast. Also plainly—and verified by the sequence of events—she has what it takes.

When three agents declined to permit her to leave Manhattan without judicial determination as to where they respectively got off in the matter of their ten percents Gypsy went to work. In about three shakes, a ritual which seemingly is right down Rose's alley, she had the agents, their lawyers and the judge in a huddle, with the agents this time doing the shaking. And well they might. When it was all over even the judge was smiling. The agents could be pardoned if they were not. They got their 10 percent all right—divided between the three. Then Gypsy started for the West Coast.



"Strip Tease," a story written by Leston Huntley and Albert Barker, has been bought by Republic Studio. No, the studio is not a Hays affiliate. Very likely, however, when the tale has been passed by the successors of what in other and more irreverent years were known not without some measure of justification as the Lady Cancers not even a burley house will find it exciting enough to risk on it any of its money. There may be some who will agree with the statement that a good story requires no such sensational title to sell it to any one.



Why Belittle Good Picture?

AMONG the pictures seen during the last month was Universal's "Let Them Live." It is not a fad of this writer when emerging from a preview to look up the bowwow of a studio perhaps pretty sure to be standing in the lobby waiting for the comments of his friends, be they bouquets or brickbats. We did take the liberty of shaking the mitt of Charles Rogers of U and suggest he had a "pip." We realized at the moment the professional reviewers would be moan the absence of what they would describe as b. o. (meaning "big names" in the cast). Who after all really cares so long as it be a gripping story and splendidly done by actors as good as the best, with every department in the picture at top quality and efficiency?

Several times in the course of twenty years we have taken the liberty of quoting that remark of the veteran Daniel Frohman to the effect that "No great actor was ever made without a great play."

After seeing "Let Them Live" there will be quite a number who will travel a distance to see John Howard and several others in that cast. If they were not before they be b. o. now.



George Bernard Shaw, making debut as screen player, discusses with John Stumar, A.S.C., directing his first picture, the playwright's contribution of lines he personally will speak in "The Kings' People."

STUMAR DIRECTS SHAW

TO BE ASSIGNED to direct your first picture is something in the life of any cameraman, even a veteran. To have handed you as a member of your cast the name of George Bernard Shaw is a genuine thrill in the life of any director, even a veteran. Many directors have dreamed of and prayed for such a consummation of their career, the attainment of such a peak, but aside from widely separated one or two minute appearances in news weeklies—not over two or three at the most—no one previously has been able to tempt the caustic weaver of plays to face the instrument that simultaneously records image and sound.

To John Stumar, A.S.C., during the month of April returned from a seven months' sojourn in England, fell the distinction of directing a picture in which George Bernard Shaw appeared as one of the actors. To contribute

Greatest Living Writer Makes Debut in Screen Drama as A. S. C. Man Wields First Megaphone

to the sum of unusual circumstances surrounding the making of the subject the playwright wrote his own lines.

"The Kings' People" was the picture, described as "A British Epic by John Drinkwater." The author declared his two objects to have been the showing of the staying power of the British people through all manner of ordeals and also showing what he conceives to be the redeeming foundation of the whole British character—the sense of tolerance which has enabled the empire to pass from a somewhat narrow spirit of imperi-

alism to a far more generous spirit of commonwealth.

A Coronation Picture

The release of the picture was designed to synchronize with the coming coronation in May. Its theme was to be the highlights of the reigns of the four monarchs from Victoria down who have preceded the present ruler. Incidentally the coming June will mark the centenary of the coming to the throne of Victoria.

Sharing the honors and the appearances of G. B. S., others seen in this newer and later Cavalcade were Viscountess (Lady to us) Astor, M. P.; the Right Honorable Austen Chamberlain, K.G., P.C., M.P.; John Drinkwater and Violet Loraine, Mary Clare and Daisy Kennedy from the stage. The picture has been slated for showing in this country.

It seems a strange twist of fate

that neither Chamberlain nor Drinkwater lived to witness the showing of the picture.

It was Stumar's success in photographing storm scenes at home that caused an English producer to cable him an attractive offer last summer. It was explained an English classic was set to go, with a second picture slated to follow. The cameraman learned it really was a classic—"The Mill on the Floss," by George Eliot—and on August 21 he left Hollywood, sailing on the Queen Mary five days later. Incidentally it was a trip on which the blue ribbon was taken from the Normandie for a fast run.

All-English Staff

"The Mill on the Floss" was made and delivered in four weeks despite the delay encountered in the making of daylight exteriors on account of the weather, necessitating booster lights, and the following handicaps imposed on the night storm scenes due to sudden and frequent shifts in the direction of the wind. But the A.S.C. man says the storm stuff was just what the doctor ordered, with a corresponding high rating when the subject was trade shown.

With the exception of the cameraman the staff was all-English. The film is now running in England.

Under the direction of Melville

Brown the cameraman went immediately into "Star Dust," a musical. Three Americans were in the cast—Wally Ford, Ben Lyon and Lupe Velez. Larry Ceballos guided the thirty-six girls and thirty-six boys through their steps.

"Intimate Relations"

The American's third picture was "Intimate Relations," a semi-musical, directed by Clayton Hutton. Aside from June Clyde, the cast and personnel were English. About five weeks were devoted to the making. The subject had not been trade shown when Stumar sailed for home.

"The Kings' People," as inevitably was bound to be the case, was episodic in nature. Stock shots were employed of historic scenes, some of these extending back into the era of Victoria. Woven in with them would be scenes of living participants. One of the most effective of these attended the appearance of G. B. S., to the audience there seemingly being something uncanny about it.

The stamp of John Drinkwater was prominently on the picture. Not only did he write the story. Also he played in it, as did the members of his family. Much of it was staged in his own home, in the midst of his great pottery and bottle collection, covering

many generations of English artistry.

The author will be remembered as the writer in 1919 of the popular play "Abraham Lincoln," successful in England as well as in the United States. In this country Frank McGlynn attained fame as the portrayal of the President. Drinkwater also later wrote a biography of Carl Laemmle.

The film will be distributed by Warner Brothers Pictures Ltd. Its release in the United States was pending in the middle of April.

Praises Coworkers

"Yes, I had a marvelous time in London," declared Stumar to the editor on the occasion of a visit to the new home of the A.S.C. on his arrival in Hollywood. "It takes no time at all for any one blessed with even a minor sense of humor to discover that if he will resign himself to circumstances as he finds them, to forget what he knows about the seeming advantages of home weather, to take things for granted and as matter of fact, that he can get along and do well and have a good time simultaneously."

"The crews in the different studios were 100 percent with me and seemed to like the stranger's way of doing things. I certainly have got to hand it to them for making a man feel at home."

BLUE RIBBON FOR R. K. O.

RKO-Radio is engaging in a bold experiment. In all respects it is a worthy one as well. By the time this is printed Barrie's "Quality Street" will be well on its way. Here is a stage play written thirty-five years ago by a man then forty-two years old and around a small English community between 1805 and 1815—the period marking the close of the Napoleonic era.

Quality Street is a highway where women abound and the passing of a Man is an event. Peering from behind the parted curtains that herald the appearance of a male person are no bad women. The cynic will suggest there can be none—that there are no temptations. And that of course will be unfair.

The experimental phase enters in the bringing of these ultra-conventional women of a hundred and thirty years ago, these women of the simplest lives, of the most sheltered existence, into the white light of life in 1937—into a time of wealth looting and bloodletting.

Here is a story where though soldiers march to the stirring roll of drums not a shot is fired, not a blow is struck—if we except the blow of a croquet mallet in the hands of a

jealous soldier driving a ball out of bounds.

To one who but a few weeks before had by his own fireside reread "Quality Street" in "Representative Plays," by J. M. Barrie, there was a play outside a play in following the reactions of the great audience in Pantages Hollywood at the preview.

In the beginning there was plainly an "Aw! Aw!" attitude on the part of the house, a seeming predicament of indecision whether openly to snicker at rather than with the quaint characters. Gradually the great house fell under the Barrie spell. Gone was the jazz era, with its profanity and bloodletting. Present was the day of Napoleon; Victoria, the apostle of womankind, was not even yet born.

Long before the curtain fell the house was won. And again Barrie, master of the simple and the wholesome, also had won.

By the way, students of playwrighting and the creating of scenarios will find instruction as well as entertainment in the reading of "Representative Plays," by J. M. Barrie, Scribners, with an introduction by William Lyon Phelps.

The foregoing was written in March. In the pressure of makeup for the April issue it was cast to the wolves. The item, however, bobbed

up in the "overmatter." In the meantime it had come to the editor's attention the picture has won out with the multitude—and in spite of its homespun atmosphere, its pre-Victorian feminine viewpoint, its lack of the blood-curdling, melodramatic buncombe, it is registering boxoffice returns of 35 to 40 percent in excess of the average picture. In it is a lesson for those who aim to give the best. Our compliments to RKO.

If RKO's "Quality Street," was an excellent portrayal of the beginning of the nineteenth century, then its splendid "Shall We Dance?" released in April, will bring to its audiences a revelation of life as it is at the moment. The two subjects make an excellent contrast. We have the simple ways of rural England in 1805, a community where the women are shy and retiring, against an atmosphere of the theater and the night club, of Paris and New York, where the women not only are neither shy nor retiring but are ready to meet men on their own ground, with an even chance of winning the honors that go to the skilled in daring, in strategy and in finesse.

To those who would look upon two rare and widely diverse examples of screen production here is a chance.



Scene photographed during filming of Selznick International's Technicolor production, "A Star is Born"; an original story by William A. Wellman and Robert Carson, co-starring Janet Gaynor and Fredric March.

DAVID O. SELZNICK Producer
 WILLIAM A. WELLMAN Director
 HOWARD GREENE Photographer
 W. OETTEL Studio Chief Electrician

SCREEN TEST


A difficult barrier on the course to stardom is the screen test. This scene from "A Star is Born" shows Miss Gaynor, in her role as Esther Blodgett, getting her big chance—the screen test—which will determine her future career. The

final screen test is the judgment of the theatre going public. Carbon Arc Lighting has undergone this test. The verdict is unqualified approval of the improved quality of photography which carbon arc lighting in the studio has made possible.

CARBON ARC LIGHTING MEETS EVERY DEMAND OF THE CAMERA

- It is silent, cool and remarkably fast.
- It has the photographic qualities of daylight.
- It has proved a necessity for color productions.
- It improves black and white photography.

NATIONAL CARBON COMPANY, INC.

Unit of Union Carbide  and Carbon Corporation
 CARBON SALES DIVISION, CLEVELAND, OHIO
 GENERAL OFFICES: 30 EAST 42ND STREET, NEW YORK, N. Y.
 BRANCH SALES OFFICES: NEW YORK • PITTSBURGH • CHICAGO • SAN FRANCISCO

ARNOLD AGAIN HEADS CINEMATOGRAPHERS

FOLLOWING a general election by the members of the American Society of Cinematographers early in April the new Board of Governors re-elected the following officers:

President, John Arnold; first vice-president, Victor Milner; second vice-president, Charles B. Lang, Jr.; third vice-president, James Van Trees; treasurer, Fred W. Jackman; secretary, Frank B. Good.

The Board of Governors as now composed is as follows:

John Arnold	Fred W. Jackman
Elmer Dyer	Ray June
Arthur Edson	Charles B. Lang, Jr.
George Folsiey	Victor Milner
Alfred Gilks	Ted Tetzlaff
Bert Glennon	Joseph Walker
Frank B. Good	James Van Trees
Vernon L. Walker	

"I realize how difficult it is for me to try to impress on my fellow-members and my associates on the board my deep appreciation of the great honor done me by election to my seventh term as head of this splendid body," declared President Arnold at the board meeting following the election.

"In the life of the society, now approaching a score of years, one of the dominating objectives of the membership has been the ownership of a home of its own. It is a matter of congratulation that in the past year our objective has been attained.

"One of the first major fruits of the acquisition of our beautiful clubhouse is the action by the officers in establishing a members' night once a month. That means more than just a gathering for fraternizing and passing a pleasant evening. Rather it marks a definite step in the progress of the society. It means an opportunity for keeping up with the advance in all of the ramifications of motion picture photography—and also its allied crafts.

"These monthly meetings have been in the minds of the officers for a long time. But in the way of making that an actuality there has been under the former conditions a genuine obstacle. It would be necessary we go out and 'hire a hall.' It was believed, and I think rightly, the majority of the membership would not respond to the call with any enthusiasm.

"Now what was just a castle in the air is a castle in the hand.

"In the past year the society has progressed for good in all discoverable ways. I think the membership will agree on this. And I am sure the

open meetings each month will go far to increase our knowledge of what is going on in our own industry, to strengthen our bond of friendship, and so to solidify our fraternal foundation as will still further make for the society's security, prestige and perpetuity.

"If any member has any suggestions for the improvement of the lot of cameramen I hope he will let us have the benefit of it.

"I pledge every effort for myself, and I know with entire certainty I may do the same for my fellow-board members, to make the coming twelve-month one of the more memorable in the history of the society.

"The A.S.C. will continue to keep abreast of the times, to go forward and never to lose step with those forces that seek the maintenance of amity with all of those wherever found with whom its lot is cast.

"I have been asked how it seems to be elected for the seventh term. Well, after being in harness for six years, with abundant opportunity to realize the growing responsibilities that inevitably accompany these official duties, I do want to say—and



John Arnold, president of A.S.C., now serving his seventh term.

again I am sure that also I may speak on behalf of those who officially share these burdens with me—there is a growing appreciation of the honor that has been conferred and a deepening determination to be worthy of it."

The Movie---Uncle Sam's International Salesman

Prepared by Los Angeles Office of the Bureau of Foreign and Domestic Commerce.

IT WAS ONCE SAID that wherever the white man had trodden some product of an American manufacturer could be found. Today the motion picture is no exception. It can be seen on the boulevards of the capitals of the world or the most distant jungle outpost. Hollywood is the capital of the United States to the native humming the theme song of an American picture in the rice fields of China. The movie stars are better known to the world than the founders of our country, our great industrialists or artists.

The motion picture unfolds to the world our progress in industry, advancement in standards of living, our literature, styles and recreation. Utopian scenes in some pictures have brought inquiries from distant countries for products that have not as yet

found their way through our factories or fashion parade.

What does this far reaching penetration mean to the motion picture industry? It brings a conscious desire on the part of every native to possess the luxury and comforts offered by the factories and farms of this country. When one of our thousands of products comes in contact with our less worldly endowed neighbor, he associates it with having first seen it on the screen. Every showing of an American film in foreign countries creates a demand for the products of our factories.

The automobiles driven by the movie stars eventually find their way to the palatial residences on the Riviera or to the palace of a desert chief in the countries of the East. Clothes, sport-

Continued on page 224

SCENE FROM 20TH CENTURY-FOX SPARKLING NEW MUSICAL...

"WAKE UP AND LIVE"... *Starring Walter Winchell and Ben Bernie*



COMPACTNESS OF EQUIPMENT MAKES G-E MAZDA LAMPS INVALUABLE

Not much room for lighting equipment behind the band in this scene from "Wake Up and Live" . . . but they needed light there to produce the desired effect.

That's where the compactness of equipment using G-E MAZDA lamps comes in handy. This feature makes possible lighting effects that are difficult or impossible with other illuminants.

Compactness is only one of many helpful qualities of G-E MAZDA lamps. And there is an amazingly wide range of types and sizes to provide light for every lighting need . . . from set lighting to special effects.

Are you benefiting fully from this flexibility? General Electric Company, Nela Park, Cleveland, Ohio.



G-48-2 K. W. Spotlight

GENERAL  ELECTRIC
MAZDA LAMPS



A. S. C. MEMBERS ON PARADE

● Don Malkames, A.S.C., of New York, arrived in Hollywood April 10 for a stay of a month. During that time he will be situated at the General Service Studios, where he will photograph a number of two-reel subjects sponsored by a large national advertiser. The New Yorker is connected with Audio Productions, subsidiary of Western Electric. Generally the work of Audio is the production of industrials of the better sort, the kind that not only are designed to entertain an audience but to instruct as well.

The company's range of activities covers all major industries. It does not seek to go into processes of manufacture. Rather it aims to dramatize an industry, to symbolize what it means to the world at large and to those who live in it. The company recognizes the resentment that is manifested by the customers in a theatre when it dawns upon them some one is trying to sell them something. It tries to make an impressionistic film which will entertain an audience and at the same time make those out in front feel that steel, for example, is a tremendous industry and bulks big in every one's life.

The visiting A.S.C. man was looking forward to meeting his fellow-members during his stay on the West Coast—and that sentiment was reciprocated by them.

● Karl Freund, A.S.C., following the arrival in China of prints of "The Good Earth," which he photographed, has been in receipt of urgent letters from many of the four hundred million asking him, among many things, how he obtained certain shots, what is the course to pursue in order to get a job as a cameraman in America, and many other strange questions such as only can be conceived by the uncounted multitude spread over the face of the earth seized by a single obsession:

"How do you get a job as cameraman in a Hollywood studio?"

● Leo Lipp, A.S.C., has arrived in Hollywood from New York to supervise the making of a Grand National

subject with the Keller-Dorian color process.

● J. Burgi Contner, A.S.C., has purchased the old Grantwood (N. J.) studios, changing the property's name to Producers' Service, Inc. The plant has been thoroughly overhauled and newly equipped with sound and camera apparatus and is all set to go.

● Harry Fischbeck, A.S.C., is the owner of a macaw, a philosopher of unusual keenness and ordinarily quiet and peaceful but garrulous to an extreme when aroused or curious. At least, Harry was the owner. He was the owner prior to Easter Sunday.

The aforesaid philosophic macaw is always seeking the foundation of things, their origin, the lowdown if you will permit us to employ so plebeian a term when discussing anything pertaining to philosophy. Nothing does he enjoy quite so much as to examine what is taking place around him from an elevated, even an exalted, position. He dotes on looking down on while looking into things.

Furthermore, nothing quite so upsets his usually placid, unboisterous spirit as an unusual gathering or commotion of any kind, one to which he may be unaccustomed or as to the background of which he may be uninformed.

From his private parallel—platform to the uninitiated—in the grounds adjoining Harry's Palm Springs villa on Easter Sunday morning Mac noted with growing concern the assemblage of what the neighbors quite well understood to be for an Easter Morning service, of the outdoor as well as of the open door variety. Harry knew about it, but he was so excited about getting out of bed early on a Sunday morning he forgot all about tipping off Mac.

'Morning-After' Sound

The large and colorful bird, though most uneasy, remained also unvoiced until the minister orally opened the service. Suddenly a clarion call shattered the Sabbath calm, the rapidly developing reverent, cathedral atmosphere.

Only too intelligible were the raucous, guttural and suspiciously bibulous notes—the peculiarly undeniable evidence that somewhere on that

peaceful morn the party still was going strong; notes with decibells to burn.

"What's the matter? What's the matter?" was demanded. And before the startled would-be worshippers could determine the source of the impious, irreverent disturbance the command was repeated, with growing insistence.

Now it is the tradition of the pulpit to ignore such interruptions. But that is something of which Mac had no knowledge. How the—how could he? Harry never had told him. And the minister in his shocked surprise forgot all about it. Wishing he were still in bed, the clergyman turned. The eyes of the congregation followed his.

Suddenly realizing he was the center of something or other Mac got on his toes. When he noted several strangely angry persons starting in his direction he spun the old top and took off for the lower branches of a convenient tree, meantime and while yet in flight insisting on an answer to his query.

Even those fifty-two times a year delinquent neighbors who as usual had planned to employ their Sunday paper for an altar cloth changed their non-Sabbatarian minds and deserted their easy chairs to find out what the riot was all about.

Mac Demands Answer

As Mac sought increasing altitude to evade the ever-threatening clutches of his red-faced pursuers, whose rising and now somewhat unholly vocabulary seemed peculiarly out of step with what had been intended to be a religious service, a hurry-up call went in for the fire department—the members of which seemingly at the moment were the only persons in the town in bed.

But Mac just went from one—oh, oh, that was a close one. You see, we were thinking about the language of those pursuers. Anyway, Mac just went from one tree to another.

Nevertheless, Mac still insisted on an answer. In despair the minister gave it all up. The now really large crowd, far greater than the original congregation, larger in fact than anything blase Palm Springs ever had conceived to be possible at any time in any year in that town, decided to

Continued on page 195

ACHIEVEMENT

EASTMAN announces two new super-duplicating materials...*Eastman Fine-Grain Duplicating Negative and Positive Films*. They lead to duplicates actually indistinguishable from originals, and at last provide the industry with the complete answer to a highly important photographic problem. Eastman Kodak Company, Rochester, N. Y. (J. E. Brulatour, Inc., Distributors, Fort Lee, Chicago, Hollywood.)

EASTMAN *Fine-Grain*
DUPLICATING FILMS

HOW COLOR WAS MADE AT LAST CORONATION

By W. T. Crespinel

WITH THE Coronation of King George VI and Queen Elizabeth almost upon us, it is interesting to pause for a moment in retrospect and study a photographic picture of the coronation of the late King George V and his Queen Mary in London in 1911 by Kinemacolor, the first color process. The company was just in its rompers at that time, being two years of age, but had created considerable interest because of the simplicity of the process and excellence of its color values.

To those of our readers who are not particularly informed on the subject we may mention that Kinemacolor was an additive process. The camera was fitted with a revolving color wheel, one-half having a transparent orange-red filter, the other half a blue-green filter.

This filter was positioned behind the lens and in front of the negative in order that the light rays from the lens passed through the filters to the picture area. The camera was built to photograph at a speed double that of regular black and white, which was then sixteen pictures a second. Thus Kinemacolor photographed at a speed of thirty-two pictures a second.

Through Alternating Filters

In photographing, the first picture area received an image through the red filter, the second through the blue filter and this continued throughout the negative roll. So it needed two actual pictures to complete the color cycle, accounting for the camera being speeded to double normal.

After the negative was developed, a normal positive was made in the orthodox manner and the print contained no visible color values, but latent values. The projector functioned in precisely the same manner as the camera. The speed was thirty-two pictures a second and it carried a revolving transparent color filter wheel, positioned between the lamp house and film gate, and the positive was threaded through the projector with the picture carrying the red color values opposite the red filter. Thus one really saw on the screen a succession of positive images through alternate red and green filters. Due to the persistence of vision the images coalesced in the mind, and the effect was a picture in natural color.

And now to the coronation. Realizing the historic importance of having the ceremonies recorded in color, the British Government allowed Charles Urban, president of Kinemacolor, many concessions in the matter of vantage points for the five cameras covering the ceremonies and other assistance to help make the undertaking a success.

With such assured help Mr. Urban organized his various departments to allow uninterrupted production throughout the plant both day and night. Cots were installed to allow the employees to snatch a few hours' rest whenever opportunity allowed.



W. T. Crespinel

A caterer served adequate meals continuously, day and night. Not one employee left the Kinemacolor building at 80-82 Wardour street for four days.

Prints were exhibited in London on the evening of the day they were photographed, and this, mind you, was twenty-six years ago. Not much of an achievement, one might remark, when considering the dispatch with which prints are exhibited today, hundreds of miles from where events take place, within a few hours.

But let us consider the equipment available in those days. Negative was in 200 ft. rolls. There was no panchromatic negative on the market and so Kinemacolor had to panchromatize its own stock. This was done on two hundred foot pin frames. These were brass frames with a series of brass pins mounted in the frames. With the frame lying flat, the pins about an inch and a half in length projected upward from the frame.

The orthochromatic negative was threaded upon the pins, celluloid side against the brass pins and then submitted to the sensitizing operation. It was no simple matter to thread these pin frames, since they were operated manually and of course in a room illuminated by weak light. The frame was placed upon a stand in front of the operator, the stand being constructed upon an angle of about 45 degrees.

Much Care Needed

The operator then took a roll of negative and first made a small loop at the outer end, fastening the loop with a pin. This loop was then placed upon the first pin at the centre of the frame and the negative threaded to the next pin and so on. When the frame was completely threaded the film resembled a multiplicity of squares starting small in the center and gradually becoming larger as it reached the outside of the frame, which was about 2 feet 6 inches square.

Two important points needed watching carefully, however. One was to avoid getting a "lap" which meant that the film was threaded twice on the same pin, and which would result in a lack of sensitizing of the "lapped" negative at that point, and the second was to avoid allowing the emulsion side to touch the head of any brass pin.

The pins were but 3/16 inches apart, and one readily can understand the possibility of this happening. Should this occur the rub would develop as a black mark. Experienced operators could thread a 200 foot frame, without error, in about four minutes.

After the sensitizing operation the film was then transferred to a large drum for drying. Developing of the negative was accomplished in a like

manner. There were no developing machines in those days. Also the developing quality was a matter of eye judgment as this was long before the days of sensitometric control.

Editing Done by Negative

Since it was possible to preserve the sensitized negative for a period a large amount was available for the ceremonies. Knowledge of just what was to be photographed on a certain day allowed titles to be made and held in readiness. Editing was done by the negative itself. A projector, equipped with a Nertz lamp and felt-covered gate shoes, was used.

After the negative was whipped into shape it was rushed to the printing room. There was no cinex or similar light testing machines available. In fact, the printers were manually driven and the light changes manually operated. Thus in printing the operator first inspected the roll of negative over a white light to acquaint himself with the general quality of each scene.

Then, after the printer was threaded, the operator printed by manually turning a large disk which operated the mechanism, the disk having a handle and using his right hand while with his left hand he operated the light control, which was a Tungsten lamp mounted on a sliding arm and could be brought toward the printing aperture or retarded by turning the control lever left or right.

As to the position of the lamp for the correct printing density, the printer determined that by the first picture of any scene which was visible at the printer aperture. It is remarkable, but nevertheless a fact, that a printer could make copy after copy with hardly any visible variation.

The printing finished, the prints were sent to the developing room, where again they were threaded on the two-hundred foot pin frames and were developed in ceramic tanks holding ten gallons of solution. After the films were dried they were spliced together in full reels, splices being made by hand, as machines were not then on the market.

Late King Also Invested

The first gala showing of the coronation pageantry was at the Scala Theatre in London. Special musical accompaniment was afforded by a full orchestra hidden beneath a palm leaf bower in the orchestra pit, the musical numbers being particularly stirring. Included in the ceremonies was the investiture of the late abdicated Edward as Prince of Wales.

Shortly after the coronation, the newly crowned King ordered command performances of the entire ceremonies. So great were the enthusiasm and public support of these films that, in November of the same year,

Charles Urban, together with a staff of photographers headed by Joseph De Frenes, now president of De Frenes & Company, Philadelphia, and including Alfred Gosden, well known Hollywood film technician, set sail for India to photograph the Delhi Durbar or the crowning of the King

and Queen as Emperor and Empress of India.

In this instance a temporary lab was fitted out at Delhi and all negative developed there and sent to London for editing and printing. Many people remember the Durbar more distinctly than the ceremonies in London because of the greater richness of the events.

Elephants Decked

Outstanding among the ceremonies were the elephant parades. These elephants, bedecked in cloths of gold and silver, set with rubies, pearls and diamonds, were ridden by princes and gawkers. Some of the wealthiest men in the world rode past the great throne, mounted high above the flat plain, outside Delhi, in seemingly endless procession.

To show future rulers of the empire the British Government has a complete copy of both the coronation and Delhi Durbar. Since a chuckle is always a good tonic, the following anecdote might be worth repeating. The coronation pictures were being shown in New York at a theatre on Broadway. In one scene the King is seen riding alone in state, in an open carriage.

There came a slight pause in the procession, and it so happened a Kinemacolor camera was directly opposite the royal carriage. Hearing the click of the camera, the King turned and looked right into the lens. Nodding slightly he smiled, and the procession continued, the King passing out of the picture frame.

The particular projectionist running the films delighted, upon occasion, in vocally affecting a cockney accent. While running the films one day a thought occurred to him which he quickly put into effect. With his head protruding through the opening in his projection booth he waited for the mentioned scene to appear. As the procession paused he shouted in excellent cockney, "Hy, George!" and the King, as though acknowledging the salutation, turned his head, smiled at the greatly amused audience, and drove on out of the picture.

The writer is indebted to Arthur G. Waddingham for his assistance in verifying dates and happenings recorded in this article.

NO PUBLIC EXHIBIT

During the spring convention of the Society of Engineers all technical sessions will be held in the Blossom Room of the Hollywood-Roosevelt Hotel. There will be no public exhibit of apparatus in the hotel; although members registered in the hotel will of course be privileged to display any equipment they wish in their own rooms.



COOKE LENSES

have earned world-wide preference among experienced cinematographers because they give superior results under all conditions. Focal lengths for every need. Write for descriptive circular.

BELL & HOWELL COMPANY

Exclusive World Distributors
1848 Larchmont Avenue, Chicago
New York: 11 West 42d Street
Hollywood: 716 N. LaBrea Ave.
London: 13-14 Great Castle Street

CALL YOUR SHOTS

We'll make it for you—process—shots—slow motion—color—sound and silent—INTERIOR and EXTERIOR—AT PRICES TO MEET YOUR BUDGET.

Every type of professional equipment is on hand—24 hour service.

The finest cameramen and technicians in the east will handle your assignments . . .

Cable - Phone - Write

Ruby Film Co.

729 Seventh Avenue

New York City

Cable Address RUBYCAM

Established since 1910



JONES DEVELOPS FOCUS SHIFT FOR B-H CAMERA

HARRY JONES, a Hollywood cine craftsman, has developed a method of applying to the Bell and Howell camera a quick-action focusing shift of the type generally used, while at the same time retaining the standard features of the camera.

In this system of modernization the camera head undergoes a major operation at the start. The door is discarded and the camera box is cut down to the rectangular box that houses the movement; the shutter-housing is removed almost entirely, only that part behind the forward end of the camera box remaining.

New Baseplate

An entirely new baseplate is then fitted. This carries the dovetailed supporting rails upon which the whole upper part of the assembly slides from shooting to focusing positions and the toothed rack by means of which the movement is effected.

This in turn is fitted upon an L-shaped base. The horizontal member serves as a base for the camera, while the upright member forms a new front board, carrying the lens turret, etc. A transverse shaft carries a pinion which meshes with the rack on the sub-base and moves the camera-head. The rear end of this shaft terminates in a Tee-handle fitted with

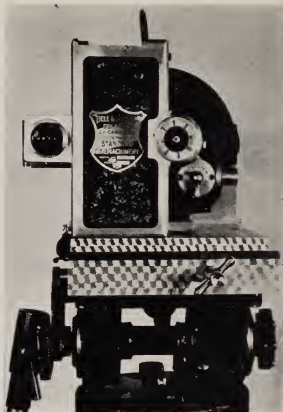
a spring plunger lock, by means of which the head is shifted and locked into place.

New Door Fitted

A new door is fitted to the camera. In this door is built the magnifying system of a conventional focusing microscope. In use the camera head is shifted to the right for focusing. This brings the focusing microscope into line with the aperture, permitting the cameraman to focus in the usual manner on a ground glass screen. When the camera is returned to the photographing position the microscope is ordinarily abutted against a protecting block which is a part of the upright portion of the new base.

In some special installations, however, this block has been pierced to take a matched finder lens, permitting the use of the microscope as a viewfinder as well as for visual focusing. In this case the microscope can be fitted with the conventional finder mattes to coordinate with the fields of lenses of varying foci.

The mechanics of the Jones focusing system is noteworthy. The lenses are mounted in a conventional four-lens turret carried on a special frontboard in the upright part of the L-shaped base. The entire frontboard moves in and out for focusing. This elimi-



Rear view of Bell & Howell camera showing new focusing shift as fitted by Jones.

nates the errors introduced by rotating the lens in focusing.

Camera Practically Unchanged

The focusing control is a knurled knob, conveniently placed at the lower left hand side of the base. A small lever slightly in front of this knob locks the focus at any point.

Further than this the camera is unchanged. The mechanism of the camera itself, whether the standard pilot-pin movement, the speed movement or any type of silenced movement be used, is unchanged by the conversion. The basic features of the Bell and Howell remain unchanged; only a more modern, quick-action focusing shift has been added.

The principles of design involved in this type of focusing shift are now understood to be in public domain, so that this conversion may be applied and used without infringement of patent rights previously extant.

With this change, however, the standard Bell and Howell camera becomes adapted to the needs of present day production, despite the many changes that have occurred in the twenty-seven years since the original design was laid down.



A large number of interesting papers are promised for the apparatus symposium at the engineer's convention in Hollywood, May 24.

The local papers committee, under the chairmanship of William A. Mueller and with Lawrence Aicholtz as secretary, is collaborating closely with the general papers committee in arranging the details of the program. Other members of this committee are C. N. Batsel, O. O. Ceccarini, F. C. Richardson, H. C. Silent, and H. G. Tasker.



Side view of standard Bell & Howell camera adapted with focusing shift.

HOW LIGHTING UNITS ARE DEVELOPED TODAY

THE TWO YEARS just passed have seen tremendous changes in the equipment used to light motion picture sets. Today's most modern lamps are in appearance as unlike those considered the last word in lighting a few years ago as is a 1937 automobile compared to a 1917 model.

The question is frequently asked, "How did these radically different lighting units evolve?"

The answer can be summed up by the statement that these lamps were developed to meet the conditions of today's cinematography. The difference in physical appearance is purely incidental to fundamental changes in the way the lamps work.

For the past five or six years film emulsions have been growing steadily more and more sensitive. Each increase in speed has permitted a proportionate reduction in the amount of light needed to make an exposure. At the same time, we have progressed from the early talkie technique of multiple cameras to the more normal use of a single camera.

These two factors have combined to motivate a trend to simpler, more natural lightings. At the same time they have demanded greater precision in lighting from the cinematographers and in turn a more precise control of light from the lighting units.

Decrease of "General" Lighting

This demand for more precise control of illumination brings a marked decrease in the use of the so-called "general lighting" units—broad-sides, rifles, banks and overhead units and an increase in the use of the more controllable spotlighting units.

This same trend makes further demands upon the efficiency of the spotlighting units. They must be controllable over a wide range of beam spreads from a tight spot to as much as 45 degrees. They must keep all their light within the beam, for in modern precision lighting "spilled light" cannot be tolerated. Light rays leaking unwisely from the beam of a lamp might not make a noticeable impression on the slower emulsions of a few years ago, but on today's ultra-sensitive emulsions they can be more than enough to spoil a carefully planned lighting.

Faulty distribution of light within the beam can be even more serious. "Rings," "hot spots" and shadowed

centers necessitate the use of an excess of diffusion in an attempt at correction, and often, too, the use of two or more lamps with beams diffused and overlapped to do the work of one really efficient unit.

Conventional Spotlights

The conventional spotlighting units were of two types: the condensing lens spotlights and the various types of mirror spotlights. Each showed some advantages, but neither could be termed perfectly satisfactory for modern conditions.

The condensing lens spotlights projected a well controlled beam, but they were not efficient as regarded the intensity of light projected. The hazards of breakage due to the heat of the light source necessitated a lens of relatively small aperture and long focus, thereby wasting much of the light produced by the source.

The mirror spotlights, especially the 18-inch and 24-inch sizes, were the standard spotlighting units for most purposes. When used to project a tightly concentrated beam they are most efficient, but as soon as the beam is flooded even slightly inherent aberrations in the parabolic lens system produce a shadowed center. As the

beam is further flooded the difference in intensity between the center and edges often exceeds 300 per cent. Moreover, since the projected beam comes from rays reflected by a mirror behind the light source, any rays emitted from the front of that source become "spilled light."

For many years the engineering staff of Mole-Richardson, Inc., in common with most other studio lighting engineers, had conducted experiments aimed at overcoming these faults. Most of the results remedied them only partially and proved little better than makeshifts.

Partial Remedies Little Help

One of the most commonly used methods of improving the bad distribution of light on the flooded beam was to substitute a faceted mirror for the usual parabolic glass one. In Europe these were often glass mosaics; in this country, where such construction would be prohibitively expensive, faceted metal mirrors, chromium or rhodium plated, were used. These somewhat improved the light distribution, but at a considerable cost in efficiency.

The problem of "spilled light" was most commonly met by fitting "spill rings," which simply blocked all light rays from the front of the light source save those parallel to the beam. Here again good illuminating value was thrown away, and added obstruction was interposed within the field of light projected by the mirror.

Quite early in the development of the studio incandescent spotlighting units we attempted to substitute a condensing lens of one type or another for the spilling in the hope that this would both control "spilled light" and improve the beam distribution. Practical experience showed that this was not an adequate solution, however, as it proved difficult to coordinate the parabolic mirror and condensing lens optically and mechanically. Some "spilled light" remained and the shadowed center was not sufficiently improved, so this idea was abandoned.

New Type Optics Needed

From these and many other similar experiments covering a period of many years it became clear that the problem could only be solved by the development of an entirely new optical

Continued on page 193



2000-watt Junior Solarspot which marked the first step in the design of modern lighting equipment.

PERRY TALKS TO PILOTS ON AIR PHOTOGRAPHY

HARRY PERRY, A.S.C., on the evening of April 20 addressed the Associated Motion Picture Pilots. These men are the fliers who perform the air hazards for the screen. The session, which was a regular one, was held in the Knickerbocker Hotel. Mr. Perry's subject was "Airplane Motion Picture Photography." His talk was as follows:

I would like to thank you fellows for the privilege of giving a little talk on airplane photography. I would like briefly to summarize my experience along this line.

I have been a moving picture cameraman for over eighteen years. During the past fifteen years I have had well over a thousand hours of flying in connection with moving pictures. My first airplane picture was the first version of "The Broken Wing," about fifteen years ago. The pilots were Leo Nomis, Loop Murphy and Patterson (God keep them).

My first flight was with Murphy in an old Jenny. The camera was fastened to a wooden saddle, which was tied to the fuselage in back of the rear cockpit with leather straps. We had no camera motors in those days, and so the camera had to be cranked by hand.

Advice for Novices

Imagine my embarrassment when Loop throttled down the motor as we were flying over the studios on the way to location from Clover Field airport. He asked me if I thought I could turn the camera through a loop. Not knowing any better, I said "I'll try." I knelt in the cockpit facing the tail and fastened the safety belt over my legs.

Loop then put the ship through five consecutive loops. I managed to crank the camera in a way, and that was my initiation to airplane photography. Since that time I have worked on many airplane pictures, having charge of the photography on "Wings" and "Hell's Angels." I have made three round trips by air to New York, have photographed in color the Grand Canyon, Bryce and Zion from a Fairchild, the Hawaiian Islands from a Sikorsky, the Swiss Alps from a German Fokker, London from an English Hannibal and part of the Sahara Desert in North Africa from a French plane, the name of which I do not know.

I hope this summary of my experience has not bored you. I will now say something that may be of help to some of you who have not had a great deal of experience in this type of work. This is not for you old timers. You can just sit and pan me if you want, but please do it to yourselves.

The different kinds of moving picture cameras generally used are the Mitchell, Bell and Howell, Akeley and Eymore.

The Mitchell and Bell and Howell both are good for set shots, backgrounds and follow shots of other planes where the action is not too fast. The Akeley is for stunts and fast following shots. The advantage of the Mitchell and Bell and Howell over the Akeley where possible is that you have 400 and 1000 foot magazines for film and only 200-foot magazines on the Akeley, also the Mitchell and Bell and Howell are better for shots where steadiness of camera is required such as background shots for studio transparencies.

The Eymore is a small spring-driven

camera carrying 100 feet of film for shots where light weight is desired and where space for camera mount is limited. Of course, for those engaging in heavier work the Eymore provides magazines of 200 and 400 feet capacity.

What Lenses Mean

Now something about lenses and the meaning of depth of focus. Sizes of most popular lenses are 25, 35 and 40 mm., and 2, 3, 4, 5 and 6 inch. The size of a lens denotes the distance of the image on the optical glass in the lens to the film. For example, a two-inch lens means that it is that distance from the lens to the film.

The closer the lens is to the film, the wider the angle of the picture at a certain distance from the camera; also the depth of focus increases for the same reason.

Therefore if you have a set camera shot on a plane placed back of the cockpit so as to photograph the pilot and also any plane or object he may be flying towards, it is best to use a wide angle lens such as a 25 or 35 mm., as they will keep the pilot and distance objects both in focus, which a narrow angle or long focus lens would not do.

It is therefore impractical to use a longer focus lens than a three-inch from an airplane as you would probably not be able to carry focus of both planes you are photographing and clouds behind them, which are necessary to a good shot. Besides, long focus lenses are much more likely to pick up vibration of the airplane motor.

On the ground long focus lenses are practical and necessary, and it is easy to stop down the diaphragm on your lens to compensate for lack of depth of focus.

Wait For Clouds

I would like to mention a few things to remember in doing aerial photography which might be helpful. Never photograph planes in the air unless there are clouds behind them as otherwise they will look as if they were standing still, sometimes even appearing to be going backward, much to the sorrow of a number of producers, who have insisted on shooting scenes under these conditions.

Putting clouds in by trick photography has never been successful



Harry Perry, A. S. C.

either, so when there are no clouds, the only remedy is to wait for some, as there must be something back of a plane to give you sense of movement on the screen, either clouds or ground or other objects.

Also keep an eye on the film magazine lids and see they are taped on. Frank Clarke can back me up on this. He had a camera set on his landing gear out in the Valley one day and he went up over the hills and made a lot of spins and dives and came back with the film all flying out behind him. The lid had worked loose and came off.

Counterbalance Camera

It is also impossible to get a picture with a handkerchief stuck in the sunshade in front of lens as Howard Batt can testify, too, although the laugh was on me. I put it there when the motor was being warmed up to keep the dust off of the lens and then forget to take it out before taking off.

Another precaution I advise is if you have a camera mounted out on the end of a wing be sure to put a counterbalance weight on the opposite wing. Leo Nomis and I nearly crashed over Seventh and Broadway years ago before we found this out. We were taking some tight spins over the center of the downtown district for a Ruth Roland picture.

If I still have time I would like to mention a few other things that have caused me grief in the past.

Narrow Escape

In Texas on "Wings" we once tried building a large windshield on a D.H. camera ship. I think Frank Tomick and Robbie Robinson will recall this. We thought it would protect the camera operator from the terrific propeller blast, but it was unsuccessful. It was so large it blanketed the rudder and the ship nearly crashed in taking off.

Another time in Texas we had a camera set behind the cockpit operated by the pilot. He went up to about 2000 feet and did some diving and shooting of machine guns at a column of troops along a road. He had to do this three times over on account of a fly being crushed against the lens on the first two takeoffs from a meadow and the shots were no good.

Another job that caused me grief was working over the Valley one day my chute ring got caught against the side of the cockpit. While I was working the camera my chute started blowing out around the rudder. If you think it was easy pulling that bunch of silk back into the cockpit you're crazy. The pilot wasn't having any fun, either. I think it was Boots Boulatier flying the ship.

Thank you very much for your attention.

SALES SERVICE RENTALS

CAMERAS and Accessories STUDIO

and Cutting-room EQUIPMENT

**Make this office your
headquarters when
working in New York**

Mitchell and Bell & Howell camera servicing is a specialty of our experienced technicians



- Mitchell Cameras
- Bell & Howell Cameras
- Panoram Dollies
- Special Effect Cameras
- Moviolas ● Tripods
- Blimps ● Lights
- Lenses

New and Used Equipment Always Available

FRANK ZUCKER
CAMERA EQUIPMENT, INC.
1600 Broadway New York City
Telephone BRyant 9-4146-7 Cable ADDRESS: CINEQUIP

MITCHELLS—BELL-HOWELLS—BLIMPS—DOLLIES

KRUSE CAMERA RENTALS

1033 N. CAHUENGA

HI. 4464

NITE MO. 13470

MOVIOLA

FILM EDITING EQUIPMENT

Used in Every Major Studio.
Illustrated Literature on request.

MOVIOLA CO.

1451 Gordon St. Hollywood, Calif.

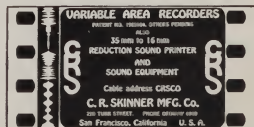
FRIED LITE TESTER

for determining proper printing
light intensity

OPTICAL PRINTERS
and special machinery

6154 Santa Monica Blvd.
Hollywood, Calif.

The officers and members of the Associated Motion Picture Pilots are Howard H. Batt, president; Frank Tomick, vice president; Jerry Phillips, secretary; Earl H. Robinson, sergeant-at-arms; Frank Clarke, Paul Mautz, Clinton Herberger, Garland Lincoln, Tex Rankin, Herb White and Tave Wilson.



VARIABLE AREA RECORDERS

PRECISE AND ACCURATE RECORDING

35 mm to 16 mm

REDUCTION SOUND PRINTER

AND

SOUND EQUIPMENT

Cable address: CISCO

C. R. SKINNER MFG. Co.

San Francisco, California U. S. A.



Berndt-Maurer 16 mm. Sound-on-Film Recording camera in use at "Federal Mine No. 1," Grant Town, W. Virginia, during the filming of the first synchronized 16 mm. sound picture to be photographed in a coal mine operating on regular full schedule... thus graphically demonstrating the ease of operation, dependability and portability of B-M 16 mm. Sound-on-Film equipment. Complete information on latest Berndt-Maurer 16 mm. sound recording developments available on request.

THE BERNDT-MAURER CORP.
119 East 24th Street • New York City

Fully Guaranteed Used 35mm Equipment

Mitchell, Bell & Howell, Akeley, DeBrie, Universal, Pathe Comeras. Portable Sound Recording Outfits. Eyma and De Vry Spring Driven Cameras.

Holmes Projectors, Sound and Silent.

DeVry Suit Case Model Projectors.

We buy, sell and rent anything Photographic.

Camera Supply Co.

1515 Na. Cahuenga Blvd.

Hollywood, Calif.

Cable Address: CAMERAS

New Burroughs Wellcome Photographic Diary Out

The little red-bound photographers' diary and handbook published annually by Burroughs Wellcome & Company of London and New York is definitely a part of photographic tradition. Unlike many time-honored institutions, however, the Burroughs Wellcome handbook keeps energetically up with the times.

Written primarily for the "still" photographers, the current edition none the less has much of value to the substandard cinematographer and his kinsman, the miniature camera user.

The Wellcome exposure calculator, while not perhaps as great an at-

traction as it was before the days of photoelectric light-measuring meters, is none the less accurate. The tables listing the normal and minimum-exposure speeds for virtually all of the world's plates and films is valuable to anyone, especially in connection with the accompanying table for converting Wellcome speeds into equivalent Watkins, Wynne, Scheiner and Din ratings.

It is to be regretted, however, the American edition does not substitute the more familiar Weston ratings for one of the less-used European ones.

The illustrations of typical subject-classes as mentioned in all written exposing tables (including those engraved on most substandard cameras) are well worth while. They should

clear up many misinterpretations of the verbal descriptions in most exposure guides.

Instructions for developing, intensifying and reducing cine-film and miniature-camera negatives with Burroughs Wellcome "Tabloid" products are included. Certain of these are likewise applicable to doctoring ailing reversal-film cine shots.

Of unique value is the section devoted to tinting and toning reversal and positive cine-films with "Tabloid" toners and "Soloid" stains. These afford the handiest method of securing color effects on black-and-white film, and offer as well an entirely new range of effects for making color titles on monochrome film for use in Kodachrome pictures.

W. S.

CANTY JOINS UNIVERSAL

George Canty, for many years American trade commissioner on films in Europe, is reported by Variety to have been signed by Universal as general manager of Universal in Europe. The contract is said to be for five years. Mr. Canty has been a most faithful servant not only to his employer, the United States Government, but also to the entire film industry. He has kept film men and film trade papers fully informed as to what was going on in Europe in a film way. His successor will have plenty to do in following the pace set by Canty.

The trade will join in wishing the former trade commissioner a full measure of success in his new field, his first film job in private employment.

NEW OFFICE FOR NATIONAL

The San Francisco district office of the Carbon Sales Division of National Carbon Company, Inc., formerly at 599 Eighth street, has moved into newly established quarters in the Adam Grant Building. The address for this office is now Room 524 Adam Grant Building, 114 Sansome street, San Francisco.

The following products manufactured by National Carbon Company are handled by this division of the company: Carbon brushes, welding carbon products, chemical carbon products, carbon and graphite specialties, graphite powders, lighting carbons and carbon arc lamps.

The office is under the jurisdiction of E. C. Friday, district manager.

CRANE GOES WITH CHARNEY

George Crane, for years connected with Hollywood film laboratories, among others with Chester Bennett, Consolidated and latterly with Columbia as assistant to George Seid, has joined C. King Charney Inc. He will be sales contact and representative.

Developing Lighting Units

Continued from page 189

system which would combine at least a major part of the power of the mirror lamp with the ideal beam distribution of the condenser spotlight.

It was evident that these ends could best be achieved by some type of lens spotlight. The lens would collect the light thrown forward by a globe, forming it into a beam and eliminating the "spilled light" problem. The rearward rays could be collected very satisfactorily by using a spherical (not parabolic) mirror at a fixed distance behind the globe, reflecting an image of the filament into place between the actual coils, and in a position from which the lens could utilize this image in forming its beam.

This much was logical enough. But it did nothing to get around the basic weakness of the condensing lens spotlight—the fact that the heat given off by the globe demanded a lens of relatively long focal length which could collect only a small part of the light available.

Special Optical Construction

The solution was finally found in the Fresnel or echelon type lens. This can be made in a thin section, reducing transmission losses and breakage hazards. By making the lens of heat-resistant glass a much shorter focal length could be used and a greater effective aperture.

Of course these results were not obtained as easily as the above statements might indicate. They actually required many months of research on the part of Mole-Richardson engineers and the staff of America's leading manufacturers of heat-resisting optical products. Many different lenses were designed, made, tested and discarded. This type of lens had been used hitherto as a fixed-focus objective, and the problems of using it as a variable-focus light projector were many and unexplored.

The result, however, was the now well known "Morinc" lens which, in the equally familiar Solarspot, has come into such widespread use throughout the world that it is receiving that sincerest form of flattery—imitation.

Four Sizes of Solarspot

This lens, which is an exclusive feature of Solarspot lamps, is designed specifically for the problems of modern studio lighting. It is actually a composite lens, for each portion of the lens is calculated to precisely the proper curvature to bring the light passing through it into a perfect photographic beam at all spreads.



Everything Photographic

for Professional and Amateur

New and Used, bought, sold, rented and repaired. Designers and manufacturers of H. C. E. Combination lens shade and filter-holder for any size lens.

Hollywood Camera Exchange
1600 Cahuenga Blvd.,
Hollywood
Tel. HO 3651
Cable Address: HOCamex
Send for Bargain Catalog



Where The Promise Is Performed!

The leading, largest and best equipped Motion Picture Mechanical Laboratories in the East.

Designers and Manufacturers of Motion Picture Equipment.

ALL STANDARD MAKES OF CAMERAS

SERVICED • SOLD • RENTED

NATIONAL CINE LABORATORIES

20-22 West 22nd Street

New York, N. Y.

Even so small a detail as the almost imperceptible pattern on the rear surface plays its part in creating a smooth beam of projected light.

The result, as shown in the Solarspot, is a beam of great power which at all divergences from the tightest spot to a 45 degree flood is uniformly distributed. There are no shadowed areas, "hot spots" or "spilled light."

There are now four sizes of these new lamps available. The newest is the Baby Solarspot, a 500-watt baby spotlight. It is built on the same principles as the larger Solarspots. Next is another new unit, this time a 1000-watt Solarspot.

Third in line is the original Junior Solarspot, a 2000-watt unit, hundreds of which are in use throughout the world, supplanting the 18-inch mirror lamp as the favorite all-around lighting tool. In at least one major studio it has been found feasible to utilize these nominally 2000-watt units with 1000-watt globes while gaining more usable light and better lighting than was possible with "18s." Finally there is the Senior Solarspot, a 5000-watt unit which has become one of the industry's favorite high-powered incandescent lamps.

The evolution of these lamps has been a matter of pioneering—a search for new methods capable of meeting new conditions.

- Experienced staff
- Newest equipment
- Cinematographers are invited to use the services of our technical personnel and up-to-date facilities—under the operative direction of Jack Guerin

International Cinema, Inc.

FILM LABORATORY

6823 Santa Monica Boulevard
Hollywood, California
Telephone—Hollywood 3961

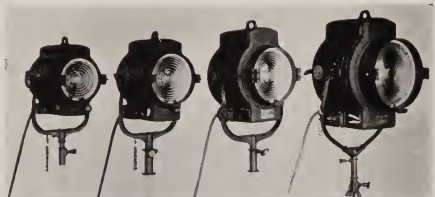
CINEMATOGRAPHERS

HAND BOOK AND REFERENCE GUIDE

Price \$2.00

American Cinematographer
1782 No. Orange Drive
Hollywood, California

FOUR of a KIND



SOLARSPOTS

500 Watt - 1000 Watt - 2000 Watt - 5000 Watt

BY



MOLE-RICHARDSON, Inc.

941 No. Sycamore Avenue
Hollywood, Calif.

ASTRO LENSES

F 1.8

F 2.3



for sale by

Mitchell Camera Corporation
665 North Robertson Blvd.
West Hollywood, California

FEARLESS CAMERA CO

Velocitor Camera Dollies, Camera Blimps, Camera Motors, and complete camera accessories and equipment.
8572 Santa Monica, Hollywood, Cal.
Eastern Representative, Motion Picture Camera Supply Co., 723 7th Ave. N.Y.C.

Ernest Cousin, Cine Executive, Passes in Paris

WITH deep regret we learn from Ch. Fabry, president of the French Society of Photography and Cinematography, of the death on March 29 of Ernest Cousin, for fifty years the secretary of that body.

From his induction into that office in 1887 to within a bare month of his death, at the age of 76, Mr. Cousin played a notable part in the growth and advancement of French photography. He was largely responsible for organizing the research laboratories of his society, for its fine educational program, and for the establishment and conduct of its journal, *The Bulletin of the French Society of Photography and Cinematography*.

During the War Mr. Cousin served as a Captain in the French Army, charged with developing and obtaining precision photographic methods and equipment for the Air Service. For these services he was named Chevalier of the Legion of Honor, and decorated with the Cross of Saint Anne of Russia.

He was further honored as Officer of the French Academy, Officer of Public Instruction, and finally, in 1930, awarded the Janssen Medal. As stated in his society's official announcement of his passing, "there was

no activity of his society in which he did not play a large part; and always his action was voluntarily veiled by a screen of modesty which deserves to be lifted. The services rendered the society throughout those fifty years were truly services to photography as a whole." There are too few such men in this world.

The American Society of Cinematographers joins the French Society of Photography and Cinematography in mourning the passing of its distinguished officer and extends its sincerest sympathies.



Engineers Hold Hollywood Meet on May 24 to 28

THE SPRING convention of the Society of Motion Picture Engineers is slated to be held this year in Hollywood. The headquarters of the society will be the Hollywood-Roosevelt Hotel. The sessions will be from May 24 to 28 inclusive.

The officers and committees in charge are: W. C. Kunzmann, convention vice president; J. I. Crabtree, editorial vice president; H. G. Tasker, past president; G. F. Rackett, executive vice president; K. F. Morgan, chairman, Pacific Coast section; G. E. Matthews, chairman, papers committee.

The local papers committee are: W. A. Mueller, chairman; L. A. Aicholtz, secretary; C. N. Batsel, O. O. Ceccarini, E. C. Richardson, H. C. Silent, H. G. Tasker.

The banquet, which will be held on the evening of May 26, will be under the chairmanship of Emery Huse.

Technical Sessions

"The Hollywood meeting always offers our membership a rare opportunity to become better acquainted with the studio technicians and production problems," announces the society in a formal statement. "Accordingly, arrangements are being made to hold two evening sessions at two of the studios. The Monday evening session will be devoted to a practical demonstration on a studio set of the function of the various personnel units which contribute to making a picture. On Tuesday evening arrangements are being made to demonstrate outstanding examples of sound recording and color photography, special effects, and picture quality. Also tentatively scheduled for this evening is a demonstration of stereophonic sound reproduction by Douglas Shearer."

The Academy of Motion Picture Arts and Sciences is arranging a session by leading Academy members, and reports will also be made of the work of the various Academy committees.

A. S. C. Members on Parade

Continued from page 184

call it a day and leave the field and the belt to Mac. As the spreading units of the throng scattered to their several homes the last that was heard from the neighborhood of the villa right up to the vocal fade-out was the insistent:

"What's the matter? What's the matter?"

In an effort to soften the outspoken indignation of his women neighbors—the men grinningly insisting he always was a great guy—Harry offered a reward of \$50 for the capture of the bird.

Strictly among themselves the men-folks are awaiting with keen interest the coming of next Easter. If Harry recovers the bird they'll have a measurable alibi to stay abed. Which may explain the concern displayed by the men as to whether Harry still has the fifty—a concern for which the women of the neighborhood in their huddles cannot account.

● John Stumar, A.S.C., who photographed in England "The Mill on the Floss," by reason of being back in Hollywood missed the world premier of that fine George Eliot classic. National Provincial put it on at the London Hippodrome in April. The guest of honor was Queen Mary. What the other side describes as the "takings" went to charity.

● John W. Boyle, A.S.C., during the past month was reported shooting "Jericho," a Capitol Production, for Walter Futter at Pinewood, England.

● George Folsey, A.S.C., slipped away to New York for a brief vacation during the last month.

● Ray June, A.S.C., got a hurry home call from MGM when vacationing in San Francisco. He had been summoned to pinch hit on "Broadway Melody of 1938" for William Daniels, recuperating from an operation.

● Gordon Jennings, A.S.C., injured during the winter, was taken home from the hospital during the month. While he will be in bed some time longer, nevertheless he is reported to be doing as well as can be expected—and making progress steadily.

● Leonard Smith, A.S.C., when told of a newspaper story that a man bearing his name had made application to the courts asking for permission to call himself Leonard Clauson, assigning as his reason that Smith

SOUND-ON-FILM SERVICE RECORD

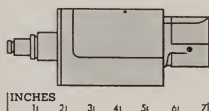
Because of the remarkable world-wide service record established by the B-M Model "E" High Fidelity Sound-On-Film Variable Area Recording Unit during the past thirty months, this unit, formerly supplied under a one year guarantee, will now carry a TWO YEAR unconditional guarantee against breakdown in service.

This guarantee is made possible because of the ruggedness, dependability and trouble-free operation of the Model "E" unit, which contains no damping materials to alter the frequency characteristic through ageing or temperature variation; employs pre-focused exposure lamps which are replaced as easily as changing an automobile headlight bulb; and which offers a frequency response characteristic to meet the most discriminating requirements.

Compact design of the Model "E" Unit permits easy and convenient installation on any 35 mm. sound camera or recorder. Write for complete specifications and frequency response curve.

BERNDT-MAURER Model "E" High Fidelity Recording Galvanometer, frequency range 20 to 10,000 cycles. \$350. F. O. B. New York.

THE BERNDT-MAURER CORP.
117 East 24th Street • New York City



was not a good name for the movies, declared he was not guilty.

"That guy doesn't know what he's talking about," insisted Len. "Just to prove to you that Smith is a good name for the movies there are only three in the A.S.C. who can say their name is Smith. There are eighteen in the same bunch who can't like the three of us tell of two others of the same name. The best they can do is to tell the world about just one other by the same handle. Forget it!"

● Paul Perry, A.S.C., left Hollywood April 21 for Buenos Aires, where he will join the staff of Tom White, producing in that city. Paul within the past two months has returned from an extended tour of India and the Philippines.

DALLMEYER ISSUES BOOKLET

We have received from J. H. Dallmeyer, Ltd., of London, "originator of large aperture and telephoto anastigmat lenses," a copy of its 1937 general catalogue. The booklet contains particulars of the lenses manufactured in the company's Willesden works as well as details of the cameras, projectors, meters, tripods and accessories distributed by the concern.

SALES SERVICE RENTALS

•• CAMERAS ••
BLIMPS
DOLLIES
ACCESSORIES
MOVIOLAS
and
SOUND EQUIPMENT

Exclusive Eastern
Representative for
MITCHELL CAMERA CORP.
• FEARLESS PRODUCTS •
• HARRISON FILTERS •
• ARRO LIGHTS •
TEAGUE BACKGROUND PICTURES

J. Burgi Continer
MOTION PICTURE
CAMERA SUPPLY
Inc.
723 7th AVE.
NEW YORK CITY
PHONE BRVANT 9-7754 CABLE CINECAMERA



MAX FACTOR'S
NEW
Satin Smooth
LIQUID FOUNDATION
A REVELATION IN FACIAL MAKE-UP

FIRST MOVIES REALLY WERE "STUPENDOUS"

CONCEIVE a film 3975 feet long and 12 feet wide—with the exception (1) that instead of raw stock which carries the image or images it is canvas; (2) that instead of objects painted by means of a combination of light and photographic devices they are painted with brush and oils.

It is around this panorama of the Mississippi River the Minnesota Historical Society has published "Making a Motion Picture in 1848—Henry Lewis' Journal of a Canoe Voyage from the Falls of St. Anthony to St. Louis." Bertha L. Heilbron has written an introduction and copious notes.

The book, which contains 58 pages, is illustrated with 17 reproductions of paintings, lithographs and sketches by Lewis. The period shown in the illustrations is from 1846 to 1848. It tells the story of the work for which Lewis is famous among collectors of Americana.

The panoramist was born in Wales in 1819 and lived 85 years. It was the work that he and his contemporaries so patiently performed, that of creating the panoramas of the forties and fifties, that has been termed the "ancestors of the modern motion picture."

One of these fellow-panoramists was John Banvard, who started in 1840 to produce what he planned to be "the largest painting in the world." He descended the Mississippi, sketching as he went. Then he went to Louisville, where in a specially constructed building he began to transfer his impressions in oils. Completed it was said to cover "three miles of canvas."

Million See Picture

During 1847 and 1848 more than 400,000 persons saw the panorama of the river. It was displayed in Louisville, Boston and New York. Then the painting was taken across the ocean.

Film Tested Laboratory and Sound Recording Equipment



Art Reeves

MOTION PICTURE EQUIPMENT

645 North Martel Avenue

Cable Address ARTREEVES

HOLLYWOOD, CALIFORNIA, U. S. A.

During a run of twenty months at Egyptian Hall, Piccadilly, more than 600,000 Englishmen looked upon the reproduction of the Father of Waters.

It was taken to Windsor Castle and "unreeled" before Queen Victoria and her household. After a tour of France and again among British cities the panorama was returned to the United States in 1852.

Other artists were Leon Pomarede, who with the assistance of Carl Weimar, a Missouri painter of Indian life, painted a panorauma 1875 feet long; one Stockwell was another who finished his work in 1849; and a panorauma of the reported and amazing length of 20,000 feet was credited to one Hudson.

Lewis' diary covers the trip of seven hundred odd miles from the falls of St. Anthony to St. Louis. He started June 14, 1848, and finished August 5. Nor was it all smooth sailing. The fifty days contained an abundance of adventure.

The "ancestors of the motion picture" did a mighty work in the entertainment of the public on both sides of the water. It did a mightier work in the colonization of the Mississippi Valley.

WE WANT TO BUY

All Kinds of Cameras

Mitchell, Bell & Howell, Eyemo, DeBrie, Akeley and other makes. Also all camera accessories, tripods, lenses, motors, laboratory and cutting room equipment.

We Pay Highest
Cash Prices.

Get in touch with us at once.

Camera Equipment, Inc.

1600 Broadway New York City
Cable Address: Cinequip

---CINEX---

• Light Testers—Polishers used by all major studios. We are the Sole Mfrs. and Distributors.

• Mfr. of 16mm and 35mm Recording Heads, Amplifiers, Developing Machines, Printers, Etc.

CINEMA ARTS—CRAFTS

914 N. Fairfax HE-1984 Hollywood, Calif.

BRULATOUR SERVICE

To all cameramen——

PERSONAL SERVICE

Co-operative Service

Constructive Service

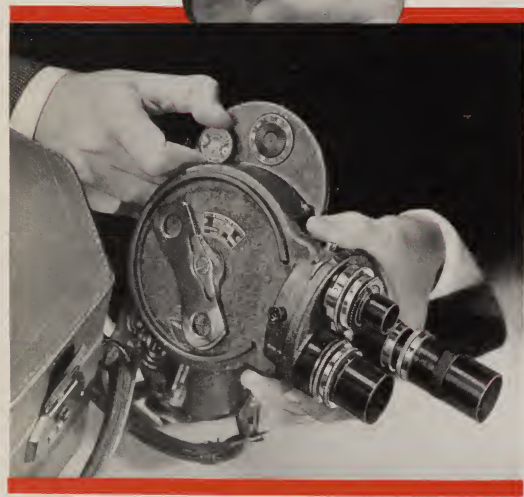
Careful Service

and

EASTMAN
FILMS

BELL & HOWELL FILMO IS

"Tops" in Hollywood



I know that a personal movie camera must be made with the same precision and of the same high quality materials as a studio camera . . . if the resulting movies are to be of theater quality. That is why Hollywood displays an overwhelming preference for Filmo.

The niceties of design and construction that Filmo offers the amateur are reflections of Bell & Howell's professional experience which we believe the amateur should have in his cine tools.

Check specifications. Examine a Filmo. Its very feel says theater-quality performance and long life.

CHOICE OF FOUR FILMO 8's

All four Filmo Double 8's have rotary disc shutters, giving utmost uniformity of exposure—especially important in Kodachrome work. All have built-in exposure calculator and enclosed spyglass viewfinder. All are exceptionally easy to load.

Two Filmo Double 8's are equipped with Taylor-Hobson 12½ mm. F 2.5 lens, viewfinder masks, and automatic footage dial. Normal speed model operates at 8, 16, 24, and 32 frames. \$75. Super-speed model at 16, 32, 48, and 64. \$80.

The other two Filmo Double 8's are equipped with F 3.5 lens. Normal speed model, \$49.50. Super-speed model, \$54.50.

FILMO 16's

Filmo 16 mm. Cameras are made in a wide choice, from the Filmo 75, which with an F 3.5 lens sells at \$59.50, to the Filmo 70-D, with which can be incorporated every feature you wish, including sound.

Filmo 70-D has seven accurate speeds including slow motion, 3-lens turret head, critical focuser if desired, 204-degree shutter, sturdy die-cast housing. Complete with Taylor-Hobson Cooke F 2.7 lens, \$188.

Filmo 121 is popular as a second camera. Any Filmo lens can be used. The utmost in convenience—so small and light, and magazine-loading. Interchange pan, ss pan, and color film at any time without fogging. Two speeds and single-frame exposures. With Taylor-Hobson Cooke F 2.7 lens, \$72.50.

BELL & HOWELL COMPANY

1848 Larchmont Avenue, Chicago

NEW YORK • HOLLYWOOD • LONDON

For thirty years the world's largest manufacturer of precision equipment for motion picture studios of Hollywood and the world

BELL & HOWELL COMPANY
1848 Larchmont Ave., Chicago, Illinois

Please mail me full information on ☐ Filmo 8 mm. Cameras ☐ Filmo 16 mm. Cameras.

Name

Address

City.....State.....

AMATEUR MOVIES



Price 25c

Foreign 35c

International Amateur
Cine Salon
For 1939
Announced by
Duncan MacD. Little

May
1937



STOP! LOOK! LISTEN!

HERE'S a tip to all the cinemateurs who are all steamed up about getting better spring and summer movies . . .

"The ideal film for general, all-round outdoor work is Agfa 16 mm Fine-Grain Plenachrome Reversible Film!"

This remarkable orthochromatic film means *more* pictures . . . and

better pictures. It brings you speed, sensitivity, exceptional brilliance, latitude, and a fineness of grain that makes possible large-size projection without loss of detail. It's economical, too.

Agfa 16mm Fine-Grain Plenachrome Reversible is available in 100-foot rolls at \$4.50, and in 50-foot rolls at \$2.75 . . . including processing and return postage.

AGFA



MADE BY AGFA ANSCO CORPORATION IN BINGHAMTON, NEW YORK

A leading
MOVIE EQUIPMENT DEALER
says:

"I think I know

... what's what in fine Movie Equipment. I've been 'in the game' since VICTOR built the World's first 16mm cameras and projectors . . . and, it's amazing how VICTOR has consistently led the field with major advancements that have made important contributions to non-theatrical MOVIES. . .

"You still can't surpass the models 3, 4 and 5 VICTOR Cameras . . . VICTOR Silent Master Projectors are truly outstanding . . . and, as for sound, this VICTOR Animatophone is a genuine marvel! That's why its popularity is unrivalled, for example, among schools—one of the most important of all sound equipment markets.

"I want my customers satisfied . . . so I always recommend VICTOR products with their many exclusive, money-saving advantages . . . for home, school, church or business use."

VICTOR CAMERAS, Silent and Sound PROJECTORS
are SOLD BY BETTER DEALERS most EVERYWHERE

Write TODAY for Literature and name of nearest dealer



VICTOR ANIMATOGRAPH CORP., DAVENPORT, IOWA
CHICAGO, LOS ANGELES, NEW YORK CITY

Du Pont Announces

an

IMPROVED SUPERIOR PANCHROMATIC FILM

now the same film used by cameramen in the 35mm size is available

for

16mm MOTION PICTURES

with these outstanding advantages

- *Maximum Speed*
- *Fine Grain*
- *Correct Color Balance*

And — with the original purchase is included both negative and positive print making possible additional copies when desired.

"It costs no more to insure a permanent record"

OBTAINABLE AT LEADING PHOTOGRAPHIC DEALERS

DUPONT FILM MANUFACTURING CORPORATION

INCORPORATED

35 WEST 45TH ST., NEW YORK CITY

PLANT . . . PARLIN, N. J.

SMITH & ALLER, LTD.

6656 SANTA MONICA BLVD., HOLLYWOOD, CAL.



BETTER THINGS *for* BETTER LIVING *through* CHEMISTRY



AMATEUR MOVIE SECTION



SOCIETY OF AMATEUR CINEMATOGRAPHERS

BOARD OF REVIEW

John Arnold, President, A.S.C., Executive
Director of Photography, M.G.M. Studios.

Karl Struss, A.S.C., Director of Photog-
raphy, Paramount Studios, Academy Award
Winner, 1928

Fred W. Jackman, Treas., American Society
of Cinematographers

Dan Clark, A.S.C., Director of Photog-
raphy, 20th Century-Fox

David Abel, A.S.C., Director of Photog-
raphy of Fred Astaire Productions, R.K.O.
Studios

Contents....

INTERNATIONAL Salon Proposed by Little	
By Duncan MacD, Little.....	294
BEING Prepared Is Key to Luck When on Safari	208
HERE'S the Answer By A.S.C. Members.....	210
HOW TO Trick Titles By William Stull	212
HOW TO Get Stills from Movie Frames	214
SAN FRANCISCANS Hail Nelson's "Trail Song"	215
THERE'S RIGHT Filter for Every Film Type By Ned Van Buren.....	216
GETTING Professional Diffusion with Amateur Movie Camera	218
MOVIE Club News	221

INTERNATIONAL SALON IS PLANNED BY LITTLE

Founder of Amateur Movie Party Sees That
Achievement in 1939 as Goal for Advanced
Amateur---Eighth Annual a Record Success

THE INTERNATIONAL Amateur Cine Salon is on the way. Duncan MacD. Little, who has sponsored and fostered each succeeding Annual Movie Party from the first to the eighth, so announces in the accompanying letter. While his modesty and his conservatism restrain him from declaring it an accomplished fact, nevertheless his record for achievement and his genius for intelligent preparation speak for themselves.

Mr. Little does not plan for the first international salon until 1939.

That will allow sufficient time in which to lay the foundation for an organization which will survive the handicaps that are bound to beset a new body.

Really, however, the International Amateur Movie Salon is merely an extension, an expansion, of the Annual Movie Parties. The announcement in itself that Mr. Little plans to do this would seem to guarantee it and to insure its permanence.

The American Cinematographer heartily favors the proposal and promises support in the furtherance of Mr. Little's plans.

The Duncan MacD. Littles' Eighth Annual Movie Party was held as scheduled in Salles des Artistes, New York, April 2. In attendance it topped by 509 percent and then some the best previous record, that of 1936. In that year there were in attendance 60 guests. This year provision had been made for 225, but it was inadequate for the 335 who came and remained to the enthusiastic close.

That enthusiasm was dimmed only by the absence through illness of Mrs. Little. The assemblage lost no opportunity, however, in paying tribute to the hostess of the early Movie Parties, manifesting its regard by hearty applause on each screen appearance of Mrs. Little.

The editor of this magazine was one of those honored by the Littles with an invitation to attend the festivities. Regretfully it was declined. In conveying that sentiment to the founders of the Movie Parties it was intimated a story of the party would be very much appreciated. It was suggested the magazine desired to pay to the occasion some of the atten-

tion which its preparation and execution commanded.

Dignity of Salon

Photographs were asked for as well as "particulars of the goings-on at this function which once might aptly have been termed an Annual Movie

Party but now seems to have attained the full-fledged dignity of an Annual Cine Salon—maybe by the tenth perhaps."

"Privately," assured the editor where now he does so publicly, "I beg to assure you of my belief that in your work you are doing something really worth while in a large way."

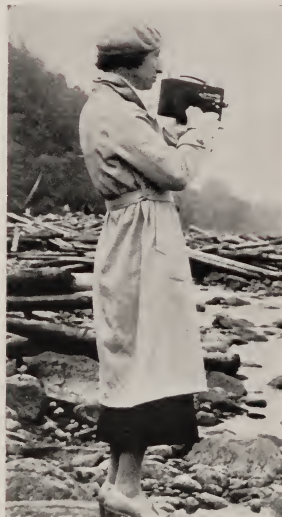
Mr. Little complied with our request for the story of the party and of the steps that had been taken in preparation for it. On the face of it there was abundant evidence the intent of the writer had been to provide the background for the editor's version—in other words, what under the circumstances inevitably would have been a lame and a tame interpretation of the vital, pulsing and friendly original.

The story that follows bears the stamp and personality of the man himself. We believe it so will appeal to the host of friends he has and to another host it will bring into being. The writer has sought, in his own words, to interview himself for our readers' benefit. Splendidly has he succeeded. We submit to our readers his message which has the flavor and the intimacy and the charm of a dinner-table chat.

By Duncan MacD. Little

I wonder just how you want me to begin, and I must confess that I am somewhat at a loss, for there is so much to say, and most of it begins with "I"—and I was brought up to be (somewhat) modest. Besides which it seems to me that our Parties, while more or less unusual, in that we run them by ourselves and for our friends, are not on a par with what could be done by any of several clubs.

As has been told already in The American Cinematographer, these Parties began sort of on their own. We had a "Travel Party" in June of 1929, before there was a depression, and then in the fall of 1930 we invited



Mrs. Duncan MacD. Little, snapped in Quebec at the canoe race last summer.

Photo by James I. Clarke

the same people, and some others, for a joint screening.

By then we had discovered that several of our friends were "moviemakers" and each of them was invited to bring a film by way of ticket. The idea seemed to appeal to all of them, so we planned another for the next fall, eventually holding it in January of 1932, for the reason that at the time originally set I was in the South on business. That makes an apparent skip of a year in the series.

Then gradually the date moved until it has more or less become settled in the first week of April, which seems pretty good—and probably will continue to be the date. This year, though, 1937, it was not so good because of the early Easter, so many of our friends having planned to be away—Florida, Bermuda, etc.

Quality Steadily Mounts

Our group of cine-minded friends has certainly widened with the years, which is not unusual, for one naturally seeks and finds friends with hobbies similar to his own. In 1930 we invited nine "moviemakers" to contribute films for the party, and six brought films; while in 1937 we invited ninety to submit films to the committee and received thirty-four.

In the early days few of the films were really good, but in 1937 only one was not excellent, at least in some respect; most were excellent in many respects.

There were times through the years when we despaired of being able to continue the Parties—the cajolery necessary to persuade some people to make films at all, and sometimes even to persuade them to submit one already made was considerable. But we think that by not having prizes we have overcome part of the difficulty. We hope so, for it is all meant as grand fun, and with no awards there should be no heartburns. As has frequently been stressed, the judging for the past two programs has not been for numerical order of quality but for interest to the audience and that the program have "balance."

Maybe better films were rejected than were screened, but the program on both occasions has been interesting. Certainly had it not been so our large audience on April 2—three hundred and more—would not have sat (and stood) through the long evening, for our own experi-

ence is that *they just won't do it.*

Too, we already have had a great number of complimentary letters, and nowadays few people use a pen just for fun.

Parties "Testing Ground"

Why do we do it? That question is frequently asked. Possibly Fred Ellis called the tui on that in his explanation recently as to why he strives with such diligence to make competition films (and his films usually are top-notchers in any competition).

Ells says he thinks it is a mild and excusable form of Exhibitionism. Maybe that's it. But even so there is much more to it. In the first place it's great fun to see the other fellow's films, and opportunities to do so are rare. And in the second place, even the non-moviemakers like to see what we do, especially if our results have any merit at all; and this is a way to show them what is being accomplished.

Then there is a third reason, probably a rather academic reason—but the cinema is still in a "growing" state, and the amateur cinema is free to roam where it desires. These Parties of ours can act as a "testing ground" to see how it is developing

and what reaction the "lay public" has to our efforts.

Certainly our own parties have been a proving ground for us whose film have been screened at them. There is no doubt but that our results have vastly improved. There is also no doubt but that my own results will stand still more improvement.

International Salon

Toward what are we aiming? That is a difficult question to answer. Sometimes we have aimed in one direction and sometimes in another, but we think a goal is now in sight, though it probably must be 1939 before we really shoot at it, on the occasion of our Tenth Annual. (It is strange that you should have used the very words, and suggested "—maybe by the tenth performance.")

We would like to have these Parties develop into an "International Amateur Cine Salon!"

We think they may do that, and now for some of our reasons.

We are a charter member of the Amateur Cinema League, having joined in the early fall of 1926.

In 1935 we were invited to join the Institute of Amateur Cinematographers, of London, England, and in 1935 were asked to act for the United States as "Liaison Officer" of that Institute, which honor was duly accepted, and pending the appointment of a similar officer for Canada we have usurped Canada as part of our territory.

The reasons for thus freely including such a vast territory are several, the main one being that our summer activities while on holidays are carried on in Nova Scotia and in Quebec, where we continue the giving of small and large movie shows, in several communities where no other movies ever have been shown.

Then too, we were the instigator of the Cine Contest held last summer in Quebec Province under the high auspices of the Minister of Highways—the Hon. Arthur Bergeron—the subject being the Annual Canoe Race (of 125 miles) on the St. Maurice River.

Count on Aid From All

The Institute of Amateur Cinematographers also asked us to be a "station" (for the U.S.A.) of its "World Tour of Amateur Films," now in progress; and in the course of almost 60,000 miles that



DUNCAN MacD. LITTLE
Photo by Blackstone Studios



Mrs. Little (at left), Mr. Little and the latter's niece, Edith Milbank, christened by Quebec papers as "the joyous Miss Milbank." Photographed in Quebec

these films are to travel, when they do reach us, we plan to arrange that they be shown not only here in New York but also in Montreal, Trois-Rivières and Quebec City.

We are a member of the Metropolitan Motion Picture Club of New York City. And we are a charter member of the Society of Amateur Cinematographers, better known to you than to me; but to be, I trust, a source of aid and advantage to all amateurs.

In this effort to develop an "International Salon" we count upon active help from the organizations named; from a few active cinema-minded friends and acquaintances scattered about the world; from the Montreal Amateur Movie Club; newspapers in Montreal, Trois-Rivières, and Quebec City; and from several metropolitan dailies in New York City (but they must be shown real news-value before they can be interested).

Seek Unique Films

As we visualize the "Salon" for 1939 we want outstanding films, selected by competent judges, from England, Scotland, Canada, Japan, Australia and New Zealand, and of course from the U.S.A.

Then we want some unique and unusual item such as we have had before. For example, this year we had the first "sound-on-Kodachrome"—and before that we had a Dufay-Color—on the screen and titled—all within a week of the film first going on sale here in New York; African pygmies killing an elephant with spears only; the first amateur "sound-on-film"; and a picture of the first sailing of the steamship Manhattan, filmed at midnight in New York (by aid of Army searchlights), etc.

And we want a novice film. And

there are the makings of a mighty fine program.

Now, we are optimistic about these ambitions because of the support we have had from friends far and near. E. A. Reeves, of Bell and Howell Company; John Arnold, president, A.S.C.; George Malthouse, editor of *Amateur Cine World*, London; the chairman, president and secretary of the I.A.C., London; "The Reeler," who writes of the "Sploshbury Cine Club" monthly in *Home Movies* and *Home Talkies*, London; Colonel Roy W. Winton, director A.C.L.; Arthur L. Gale, editor of *Movie Makers*; C. J. VerHalen, former editor of *The American Cinematographer*; Hon. Frank Carrel, M.L.C., proprietor of the *Quebec Chronicle-Telegraph*, and a keen amateur; J. L. Richard, editor of "Le Soleil," Quebec; Harold D. Marwood, president, and Walter Downs, vice-president of the Montreal Amateur Movie Club; Eileen Creelman, Dan Anderson, and Charles R. McHendon, of the New York press; and George Blaisdell, editor of *The American Cinematographer*.

Story of Eighth Annual

All of these kind friends have helped in past activities, and encouraged us to go on and attempt greater things, and we are confident they will aid us toward future successes.

The messages of good will received (April 2) at our Eighth show were significant of interest and a desire to "lend a fellow a hand," and we are very grateful.

Now for a few words about the Eighth Annual itself.

In the latter part of January we sent out the first "Requests to Submit Films"; sent these to some ninety friends, in seven foreign countries,

three Canadian Provinces, and in eight of our own states. Naturally the majority went within the "metropolitan district" of New York.

This first notice was followed up by two more, in letter form, and by numerous personal letters to this and that possible exhibitor; considerable correspondence was involved.

Then came the sending of invitations, and after receipt of "acceptance letters" the sending of tickets to those who were planning to come. All tickets were numbered, and an attempt was made to keep them as they were turned in, so that we could check definitely who were present; and we did check about 80 or so percent. This will be helpful for next year, as we think that most of them are interested supporters of the endeavor.

Two Hundred Letters

When the day of the show arrived we had expended on postage a sum indicating that besides invitations and notices requesting films some two hundred or so individual letters were written (and more received).

One very interesting group of letters and telegrams, resulting in a novel film being added to the program, was occasioned by an article in the March number of *American Cinematographer*.

Therein we read about "King of Allah's Garden" and promptly wired to Mr. and Mrs. Stanley Bean, asking they submit their film; and they immediately wired back that it was "on the way." And then followed a gratifying exchange of letters culminating in a charming offer for a "sturdier rung for the ladder of successful Movie Parties, in 1938"—signed in two hands (as were all) "Stanley and Mary Jane Bean."

People with imagination, to so sign letters about a joint interest, are people worth knowing.

The Eighth Party received better than a dozen advance notices, two from London, and thus far we have received copies of four "write-ups," the best being by Dan Anderson, of the New York Sun, in his weekly article "Your Camera and Mine." (I inclose a copy.)

Over 300 Attend

You will have noticed a big jump of "audience size" since last year. Heretofore the Parties have all been held in our home, where we were strictly limited in numbers by the size of our living room. This year we went "off the deep end" and "hired a hall." Many conjectures were made as to whether or not we would fill it. It bulged!

We had seats arranged for 225, and thought it ample. We had to put up 50 more, and at that a goodly num-

ber—maybe 60 or so—had to stand, and did, throughout the evening.

We were enabled to gratify another desire of long standing by having a real hall—we could allow the exhibitors each to bring a certain number of their friends, and we were able to give extra invitations to our judges and to our staff, which we think were really appreciated.

You will be interested to know about the hall—the distance from projector to screen was 65 feet—and, after masking, the screen was 12 feet wide! And at that, "Consider the Lilies," by Ells, had them gasping because of its sheer beauty! We turned the room around and used the little stage as "projection room," with a screen of beaver board and scantling to hide the activities, with two projection ports provided, and a viewing slit so that Miss Boerner might watch the screen and know where her record changes came.

Elfriede Boerner, Genius

For a month before the show, and after the films were selected by the judges, we worked at adding, by double turn-table phonograph, musical backgrounds for all films except "Grandfather's Garden" (the sound on color). Herman Fuchs, music editor of Pathe News, was present at the Party and was most complimentary in his comments, all of which were aimed at Elfriede Boerner, our "music librarian," who truly is a genius.

There was an overture march before each of the three groups of films. The show ended with "The Star Spangled Banner," and there was music during both of the two intermissions.

Mrs. Sless was unable, because of illness, to be present, and after the first film, Edward G. Rundoist made some informal and very sincere remarks about her absence—most fitting and appreciated, from him, for he has assisted at every one of our shows, large or small, since 1929, and he has an attendance (and working) record of 100 percent at the Annual Parties.

Audience Pays Tribute

Then later, when my own film, that of the "St. Maurice River Canoe Race" was on the screen, and Mrs. Little's image was seen, surrounded by burly woodsmen, Indians and voyageurs—the applause was, to me, wonderful and gratifying. Our parties would never have been the successes they have been without her genius for organizing and her most unusual charm and graciousness as hostess. There was little doubt but that much was lacking from the completeness of the evening, for most of the audience, without her presence.

When all was over Bert Delmhorst (chief of projection) proudly an-

nounced that even then every film was rewound and ready for immediate showing again.

Some of our guests came from great distances—the farthest being from Trois-Rivières, Quebec, the scene of our contest last summer, whence came Armour Landry.

From Washington, D. C., came John V. Hausen, as he has done each year since 1933, and the Stanley Beans came about the same distance, from Amesbury, Mass., Down East beyond Boston. Several groups came distances of a hundred miles or so, to say nothing of the suburbanites who traveled twenty, thirty, and even more miles.

On top of the many messages wishing success to the Party, received by letter and wire, from as far even as London, comes your letter and it is most gratifying—the interest of you all has made me happy, and I cannot begin to tell you how it has pleased my sick wife, whose days are very dull right now.

And now I hope I have not wearied you. I decided to write thus, tell you a lot, and leave it to you to cut your own story from it—I sought to interview myself for your benefit.

One of the aftermaths of the party is the receipt from several producers of requests for musical scores. Naturally this pleased us much. Two groups, each entirely strange to the other, seek screening of the "Canoe Race" film, for which The American Cinematographer awarded honorable mention. Previously we had arranged for an exhibition with music for the New York chapter of the Apalachian Mountain Club dinner April 23.

Now comes the Montreal Movie Club with an announcement of a special screening April 26, in which the same "Canoe Race" films will be fea-

ured. These requests involve some quick work on our part here. We can only hope they are not disappointed.



Eighth Annual

(From the Official Program)

Mr. and Mrs. Duncan MacD. Little
Present

THE AMATEUR CINEMA—
SUCCESSOR TO THE SNAPSHOT

Program

Overture

The Story of Water
..... Frank H. Demarest

The Nutcracker Suite
..... Irving W. Lyon and
..... Edward K. Warren

Springtime Walter P. Downs

The Rainbow Trail "Cinecoles"

The Evolution of a Deep-Sea

Navigator Risdale Ellis

Intermission
(10 minutes)

Grandfather's Garden
..... Russell Holslag
(accompanying music composed
by the producer)

Sailing South (1 reel only)
..... Russell Holslag

Consider the Lilies Fred C. Ells

Intermission
(5 minutes)

King of Allah's Garden (half)
..... Stanley and Mary Jane Bean

The Canoe Race on the St. Maurice
River Duncan MacD. Little

Finale



Projection room in the Littles' New York home, taken during the Sixth Annual, showing Miss Elfriede Boerner, the show's "music librarian," and Bert Delmhorst.

BEING PREPARED IS KEY TO LUCK WHEN ON SAFARI

So Learned the Pearsons When They Dropped Light Meter in African Jungle

LUCK plays a mighty hand in the success or failure of the amateur photographer when he sets forth in the jungle in search of rare pictures of wild life and wild scenery, remarked Harry C. Pearson, African hunter, in a chat during the past month. The speaker will be recalled to readers of this magazine as the retired business man whose adventures in the Dark Continent were described in our April issue.

It may be assumed that chance also affects materially the success of the professional cameraman. But the hunter was referring to the advantages that ride with the man who has been through the mill, who has learned by experience how best to avoid some of the simpler oversights which may have a major influence on the pictures he brings out of the wilds.

"After all, that trip of Mrs. Pearson and myself into Africa was a grand experience," Pearson went on. "Of course, when you travel ten thousand miles to get to a country and then put in another eleven thousand miles and seven months driving over the plains and around the mountains you rather expect to encounter several kinds of luck."

"We had a lot of good luck and a lot of bad luck. We left our hardships in Africa and only brought home the holiday spirit."

Injury to Lens Hurts

One of the misfortunes that beset his expedition and which the amateur photographer that was believes will not again happen to him arose from the failure of the six-inch lens he had very thoughtfully secured for use in plain and jungle. The lens was fully tested here in Los Angeles before leaving and so far as known was carefully packed.

Mistake No. 1 was failure to reinspect the lens in Nairobi before setting out on safari. Mistake No. 2 was in not taking along a test developing outfit which would immediately have revealed the presence of the disaster that had overtaken the lens.

And Mistake No. 3 was in the failure to take along two six-inch lenses.

In fact, the hunter-photographer declares perhaps the main result of his experience with the camera away from civilization, the Preparedness Rule No. 1 he will impose upon himself if again he undertake a similar expedition, will be:

"Duplicate all equipment."

Behind that duplication rule is another story, to which we will return in a moment. Getting back to the six-inch lens, when the three big trucks constituting the safari struck out into the plains arrangements had been made to forward for developing and printing all negative to the George Humphries laboratory in London.

Breaks Light Meter

The film was to be shipped by plane as the expedition found it possible to get in touch with a landing field. Too late word was received from London that all shots made with the six-inch lens were out of focus and that many of what had promised to be their big close-ups were ruined.

Apparently in the ten-thousand-mile journey from Los Angeles to Nairobi one of the elements of the lens had been loosened. The damage was not perceptible to the eye.

The situation was different, however, when a Weston light meter was dropped and broken. Had there been but one the accident would have ranked as a photographic tragedy indeed. There were, however, two in the equipment, and the pair on several occasions had been compared under service conditions. The readings were parallel. The only result following from this mishap was the great care bestowed upon the surviving meter.

The hunter-photographer chuckled as he related an incident that took place following the showing of "African Holiday," the film story compiled from his trip, before a thousand members and guests of the Los Angeles Country Club. As the members crowded around the hunter one of the group addressed him:

"May I inquire, Mr. Pearson, if you did not use a light meter all the way through your picture?"

"I certainly did," was the response. "And may I further ask if it was not a Weston?"

There was a twinkle in the eye of the man being interrogated. "I'll be glad to answer your question if you will tell me why you ask," he replied.

Interests Mutual

"Certainly," came back the stranger. "I have never seen a picture come out of Africa that was so evenly lighted."

"You're interested in meters?"

"Rather. My name is Barbera and I'm district manager of the Weston Electrical Instrument Corporation."

Pearson's hand shot out and hearty greetings were exchanged.

On the other side of the picture the traveler is convinced that never again will it be possible for him to secure several sequences that fell before his lenses on the trip in question. One of these is the snake dance.

The filming of that stirring spectacle was made possible through the intercession of an official who chose to accompany the Pearson safari and remain in Africa rather than take advantage of his long leave of absence and allowance for all expenses and return to his homeland.

"You know, I'm a bug on poisonous snakes and all sorts of repulsive creatures," he explained to his host. "I'd like to go home, of course, and see my family, but after I'd been there a couple of days and I began to talk about the only subject that's on my mind I'd see the heads begin to shake and then they'd all walk out on me. Oh, no, I'll stay with my friends."

So it was through the friendship of this official and his long acquaintance with Mariari, the snake doctor, that after two months of negotiation and of search for the reptiles it was possible to stage the dance.

Upward of thirty men were sent out to secure the snakes. They were taken from their native habitat and never before had been handled. Prior to the dance the natives were inoculated with a serum prepared by the snake doctor. Some of the cult as the result of the high temperature produced by the inoculation and the excitement of the dance went into convulsions. It was estimated their temperature must have reached 106 degrees.

Nearly two score snakes were thrown on the cleared space where the dance was held. Not one of them was harmed by the natives, and following the ceremonies all of them were released for return to the jungle.

One of the most effective shots in the picture is the sequence of Murchi-

son Falls. It is here the old Nile flows through a gorge and tumbles down a grade where the walls are hardly more than eight feet apart.

To those photographers who later see the film it will be of interest to recall the entire 200 feet of film in the camera was shot by hand and minus the use of tripod, not another foot of film was exposed on the sequence, and with one exception the entire 200 feet appears on the screen with original continuity undisturbed. The exception is that the cutter took a few feet from the initial exposure in order more effectively to close the sequence.

The reporter suggested that many persons following the picture might wonder how so many shots were made of animals at such close range. The answer was interesting.

Gas Fumes Kill Scent

"You know it is against the law to shoot an animal from an automobile," it was explained. "It is unsports, of course, to follow any other course, because to an animal the fumes from the gas kill the human scent. That rule does not apply to the person who shoots an animal with a camera. Because of the gasoline fumes it is possible to get within a surprisingly short range of the big fellows.

"It is different, though, when stalking a bull elephant. Then even after your quarry is down he may not be out. In fact, he may be sudden death if your artillery is not at hand and in good order."

Those who may be contemplating a big game rifle and camera hunt may be interested in the Pearsons' firearms equipment. At the head of the list were two double-barreled Holland and Holland express rifles with a bore of .465. These weapons have an impact or striking pressure of two and a half tons. In other words, when the contents of both barrels are slid into an elephant it means he has been struck by an energy of five tons.

In addition to these, which cost 150 pounds apiece in London, with an added import tax at New York of 65 percent, there were two Springfields of 30 '06, one for each of the Pearsons.

The Timid Male

Referring to the Kipling suggestion that "The female of the species is deadlier than the male," the amateur cameraman said it was a striking fact that in mixed groups of animals whenever it appeared danger might be threatening the female promptly would interpose herself in front of the male. Also, so far as he had been able to observe, this seemed to be to the entire satisfaction of the male.

When asked regarding the care of his film in the tropics Mr. Pearson said he had left Hollywood with 15,-

000 feet of Eastman Super-X negative supplied through J. E. Brulattour. Then later an additional 10,000 feet was shipped to him in the Sudan. Throughout the expedition not a foot of film was lost by reason of climatic conditions.

On his arrival in Nairobi he had transferred the film to insulated boxes, with spare ones to take care later of the exposed material. All of these boxes constantly were under close attention. In the evening they would be opened to admit the cool air, while at the coming of daylight they would be tightly sealed. In this manner an even temperature was maintained.

Asked as to his previous experience with 35mm the hunter said that prior to putting his foot on African soil with his two Eyemos he never had exposed as much as 100 feet of 35mm.

He had tried, he said, to avoid what had impressed him as a rather common error on the part of amateurs, that of keeping too close to the object they planned to photograph. On the contrary, he had endeavored to keep

far enough back to include in the field of his camera all of his objective. This, he believed, enhanced the composition and stimulated the interest of the person out in front of the screen.

"One of the grand things about that African country," said Mr. Pearson, "at least, as it appealed to me, is the continued consciousness of the fact that the things you see going on there today are identical with the things that were going on there ten thousand years ago.

"You are looking upon the same kinds of animals. The natives you meet have not changed in their manner of living in untold centuries. You realize the hand of man has not altered the face of this country since time began. You feel when riding and tramping over these almost limitless areas you are as close to nature as a man can get. Everything definitely is in the raw. And somehow I felt it was a relief to get away from civilization for a while and get back to the raw."



Mr. and Mrs. Pearson at home in Los Angeles
Copyright by Harry C. Pearson Photo by Albert L. Bresnik



HERE'S THE ANSWER

By A.S.C. MEMBERS

ANGLES ON PARADES

What is the best camera-angle to use in filming parades? Should I photograph the parade coming into the picture, moving across it, or going out of it? Should I shoot from the street level, or from a higher viewpoint? Should I use a long-focus lens to get very close shots, or should I use a normal lens to give me more of a long-shot angle?

EIGHT MM CLUB,
Los Angeles, Calif.

The angle professional newsreel cameramen have found to give the best results in photographing parades is from slightly above the parade, shooting at a three-quarter angle such that the marchers or floats come toward the camera into the picture, move closer to the lens and across the field, passing from the picture closer to the camera than when they entered the picture, and at the opposite side.

Scenes in which the parade moves directly across the field are generally disappointing, as the relatively rapid movement of the marchers' feet, etc., straight across the picture, almost always gives a blurry, flickery result. One of the biggest "Don'ts" in covering parades is never shoot the parade going away from the camera—the audience isn't interested in the backs of marchers or floats.

If possible, always pick a vantage point that lets your lens look slightly down on the parade. You'll see more that way. A second-story window is good, and the projecting marquee over a theatre or hotel entrance is even better, for you can get close to the line of march, above it, and get a perfect oncoming angle. Failing this, try for a top-row seat in a grandstand, if such are put up for the parade.

The ideal viewpoint is a high position like that, at a point where the parade rounds a corner. This way you can show the parade approaching till it practically fills the screen, and then get a side view as the marchers turn the corner and march out of your picture—and you get all this without having to "pan" the camera at all.

Generally speaking, use a normal lens or even a wide-angle one. You wouldn't normally watch a parade through field-glasses if you had a good viewpoint—so why do the same thing with a telephoto lens for your picture? The one exception to this is when some individual of outstanding interest is in the parade—some one you'd want to look at through field-glasses. Both you and your audiences would be interested in a close-up of the President, the beauty queen of the Rose Tournament or the Mardi Gras, or some personal friend. Use a long focus lens for this; for anything else a normal lens is best.

Don't, as a rule, try to "follow" a parade by panning your camera. You'll get a more natural and more interesting shot by keeping the camera steady and letting the parade pass through the picture. And don't try to photograph a parade going across the picture on a downward incline. It looks on the screen as though the marchers were reeling drunkenly past!

RAY FERNSTROM, A.S.C.

MOVING SHOTS FROM AN AUTO

I have made several running-shots with my 16mm. camera on a tripod inside my car, but they were not altogether satisfactory. I was troubled by vibration and by jolting of the car, while the tripod did not always stay properly in place. Is there any method of getting smooth, steady shots of this type used by the professional cameramen with their own 16mm. cameras?

L. A. ALBERTS,
Minneapolis, Minn.

There are several things that can be done to help minimize vibration when shooting from a car. None of them will altogether eliminate it, nor will they eliminate road shocks. But they help make such shots more pleasing.

First, you can gain quite a bit of riding smoothness by reducing the air pressure in your tires to cushion the road shocks. A little experimenting will show the smoothest speed at which to drive the car over various road surfaces: this varies with the car and the road—sometimes it is relatively slow, sometimes quite fast.

Next you can smooth out quite a lot of the vibration, and even some of

the road jolts, by speeding up your camera—running it at 24 or 32 frames a second (or even faster) rather than at 16.

If your tripod doesn't stay properly in place or if you feel it is adding to the vibration you might follow professional practice. Place an eyebolt in the floor of the car, directly under the center of the tripod. Run a stout wire or chain from the tripod-head to this, tightening it with a turnbuckle so that the camera and tripod are anchored rigidly to the floor of the car.

Several years ago J. A. Dubray, A.S.C., got some excellent running shots with his Filmo and a very simple gadget. He simply bought an extra radiator cap for his car and trimmed the top off flat. Then he fixed a machine screw through this, to fit into the tripod bushing of the camera.

With the camera mounted this way and set for a speed of 24 or 32 frames and a bit lower air pressure than normal in his front tires he got some excellent shots. He pointed the camera straight ahead, aiming it by aiming the car. He released the shutter with one of Bell and Howell's bulb-and-tube remote control devices. This, incidentally, had the added advantage of eliminating the reflections encountered shooting through the glass of the windshield.

WILLIAM STULL, A.S.C.

TABLES IN THE HANDBOOK

I would like to know if the tables of camera set-ups, lens angles, depth of focus and the hyperfocal chart given in The American Cinematographer Handbook and Reference Guide are applicable equally to 16mm. and 35mm. camerawork?

ALFONSO MANRIQUE,
Mexico, D. F.

This book was compiled originally for the use of professional cinematographers with 35mm. film. However, while many of the specific tables and charts apply only to 35mm. practice, there are many others the data of which being of a fundamental nature, are equally applicable to 16mm. and 35mm. cinematography.

The depth of focus tables and the hyperfocal chart, for instance, should

Continued on page 226

IT'S A GOOD SHOT IN BLACK-AND-WHITE



But it takes **FULL-COLOR KODACHROME**
to paint the picture as you saw it



Kodachrome Film, "daylight" or Type A for Photoflood light, is priced at \$4.75 for the 50-foot 16 mm. roll, \$9 for the 100-foot 16 mm. roll, \$5 for the 50-foot 16 mm. magazine...for Ciné-Kodaks Eight—\$3.75. All prices include processing.

paratively little. Ciné-Kodaks Eight start at \$34.50...Kodascopes Eight even lower. There's a new 16 mm. Ciné-Kodak—the Model E—priced at only \$48.50. And its capable team mate—Kodascope EE—is only \$59.50, complete. Ask your Ciné-Kodak dealer to show you economical Eastman home movie equipment and typical reels of gorgeous Kodachrome. Eastman Kodak Company, Rochester, N.Y.

COLOR—full color—makes the picture live. Gray sky snaps into a vivid blue. Tanned faces pulse with ruddiness. Yellow sweater, red tie, and green foliage make a gay scene yet brighter.

The lifelike picture becomes life, itself!

Dependable equipment with which to take, and show, full-color Kodachrome costs com-

Right—Your dealer offers this new, 10-cent exposure guide for 8 mm. and 16 mm. cameras. It tells you at a glance what "stop" to use, ends Kodachrome's few outdoor exposure problems.



HOW TO TRICK TITLES

Top Sergeant Teorey Simplifies Creation of Gadgets that Contribute Materially to Tone of Home Subjects Without Burdensome Cost

TRICK TITLES are a worthwhile addition to any film. Properly used, they can add the finishing touch of completeness to a home movie production. All too frequently, though, the average member of the 16 and 8 fraternity is likely to regard trick titles as too much of an addition—as something too complicated to be made with ordinary, non-professional cine equipment.

By way of disproving this fallacy, let me give you First Sergeant Robert W. Teorey, U.S.M.C. As was related in these pages last month, Sergeant Teorey is the "top kicker" of the U.S.S. Chester's marine detail. Being a top sergeant of marines doesn't necessarily lessen his enthusiasm for making good 8mm. movies—but it certainly does cut down the amount of time he can spend on his camerawork and titlemaking. Yet his pic-

By William Stull, A.S.C.

tures show trick titles of surprising professional-looking quality.

Title Trickery

One of his pictures opens with a double-exposed main title, the background of which shows the world revolving merrily in a full-screen close-up. In another picture his titles come into and out of the picture by flopping over vertically or horizontally. In other films his titles "zoom" toward or away from the camera, and in yet others his titles spin amazingly into place, sometimes (as in main titles) using these whirls for transitions between one title card and the next.

On the screen these titles look as though inevitably they must have been made either professionally or

with the aid of some intricate and expensive accessory ordinarily unobtainable.

In actuality the titles were made with a standard Cine-Kodak 8 and a Cine-Kodak Titler. The tricks were the result of combining these standard units with simple accessories which can be made from the odds and ends that accumulate in any household.

World For a Nickel

That main title which showed the world revolving merrily behind the title lettering is a good example of the ingenuity of Teorey's gadgeteering. This was of course a double-exposure shot, and double exposure in 8mm. is not particularly difficult to the wise filmer who marks a starting point and makes his first exposure at the beginning of a roll, counting his footage carefully.

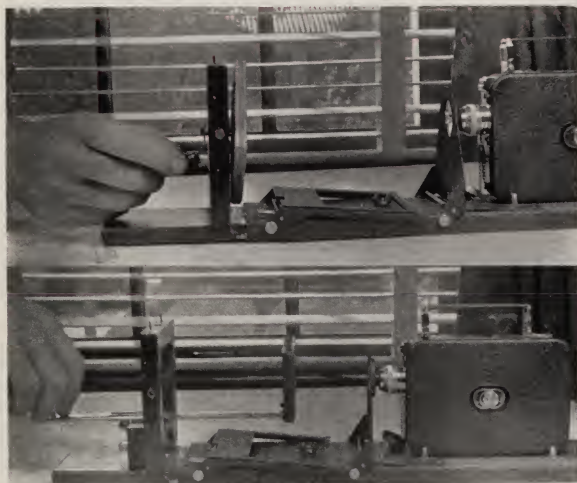
But the matter of getting the globe and having it revolve smoothly in the shot, without showing what makes it revolve, would puzzle most of us. Teorey simply went to the ten-cent store and bought one of those five-cent pencil sharpeners made in the form of a globe, with the hole for the pencil at the south pole. Next, he laid his Kodascope 8 projector on its side and slipped the take-up spindle into the hole in the globe. With the projector running slowly the world revolved smoothly.

Title Transitions

The final question was getting the camera lined up and focused properly so as to make the desired close-up of the revolving globe, which was only an inch or so in diameter. The solution lay in his Cine-Kodak titler. This focuses the lens on a small field—slightly over two and a half inches square—only a few inches in front of the camera.

All he had to do was to fold the title card easel of the titler out of the way, line up the titler so that the revolving globe was in approximately the same plane as the normal position of the titlecard—and shoot.

The same titler serves as the framework for making all of Teorey's trick titles. A two-foot board, just enough



Upper, the spinning title gadget. Lower, making a "zoom" title.



Left, gadget for making titles that revolve vertically. Center, close-up of the "flipflop" gadget set for horizontal turning. Right, the "roll-up" title drum.

smaller than the titler's metal base to slide in it, is the foundation of his trickery. At one end of this board is an upright wooden easel, the center of which is cut away much as is that of the titler's title card frame. Into this aperture fit a number of interesting gadgets.

A simple square of wood, slightly smaller than the opening and fitted on one edge with a screw bushing made by countersinking an ordinary nut, permits turning either vertically or horizontally from one title card to another. At one side of the frame a small nail is slipped through holes in frame and block to act as a bearing. At the other side a bent nail, threaded at one end to fit tightly into the threaded socket in the block, is screwed to act as a crank. When the titler's easel is folded back out of the way this supplementary easel and its "flip-flop" board slide right up into the focal plane.

For a revolving or spinning title another block—this time made to fit solidly—is put into the supplemental easel. Behind this block is a crank made from a bit of old brass and a wooden knob that looks suspiciously as if it came from a cupboard door or coffee pot. Soldered to the crank is a short shaft made from a bolt. After passing through the block and a tiny bit of old brass tubing, which acts as a separating bushing, the shaft is attached to a flat square of plywood. The title card is placed on this. When the crank is turned the card revolves.

"Roll Up" Titles—For Nothing

Most cinemateurs have cast envious eyes at professionally made "roll-up" titles. Teorey "rolls his own." The gadget for this cost him precisely nothing. A U-shaped block of wood fits snugly between the titler's regular easel and the supplementary (wooden) easel. Between the up-rights of the U is a revolving drum to carry the title. It began life as a nickel-size baking powder can. It is revolved by two gears salvaged

from a wrecked alarm clock, and the crank which drives the gears is another creation of strip brass and a cast-off percolator knob.

"Zoom" titles, in which the title moves toward or away from the lens, can be very striking. Teorey makes 'em with a couple of pieces of flat curtain rod. One piece is fixed to a small block which is bolted behind his cutaway wooden easel. The other slides inside this and carries at its end a plywood square which holds the title card. It can "zoom" in either direction from the focal plane.

Seafaring Film Editor

The same kind of flat curtain rod helps Teorey to conserve space in stowing his film editing kit aboard ship. As is usual he has a pair of rewinds mounted on a wooden base. But most commercial rewind assemblies are either too close-coupled for convenience or too widely spread out to stow away easily.

Teorey solved the problem by sawing through one end of the base and making an extension with a couple of lengths of curtain rod. Telescoped, the outfit takes up very little space; but by loosening a single wing nut it stretches out until there is ample working room between the rewinds.

On the same base he has mounted his splicer sockets to hold cans of film cement and water securely and a Cine-Kodak 8 film viewer. In many installations the use of a film viewer is not altogether convenient, for the film must be twisted dangerously as it feeds from the nearer rewind. Teorey simply added a dummy rewind—merely a spindle to hold the reel—at the back corner of the board.

This spindle is bent slightly upward, so that the film slants naturally into the viewer. The film runs safely from the spindle to the viewer and on to the reel on the right-hand rewind. When it is necessary to wind the other way the reel may quickly be snapped from the dummy spindle to the left rewind.

Not one of these gadgets involved the outlay of more than 5 or 10 cents. None of them required any material that can't be found around any household. But—they do their tricks to such advantage that they make possible trick effects no commercially obtainable devices permit. As Sergeant Teorey has learned it is not necessarily difficult to adorn your pictures with trick titles—and it's doubly fun to make them if you make them on a gadget you've created yourself!



THIS CANDID CAMERA THING

AND SO Loew's State, in New York, is taking the joy out of sneaking a candid camera shot of what goes on in the theatre—on the stage and on the screen. While flash lamps are rightfully barred in a contest of this kind, nevertheless this handicap is offset in large measure by the paying of cash prizes for the best shots. Front seats are reported worth a bonus. Undoubtedly other managers will follow the example of the metropolitan house. It ought to be good for the amateur industry.

Already the Paramount theater in Los Angeles gave the new idea a try-out. The result was an attendance of more than 500 bearing cameras. It is expected to be a regular Monday night affair.

And thereby hangs a tale. Daily Variety of April 17 told of two makes of 16mm cameras sold out on the Hollywood market. Inquiry of one of the largest manufacturers brought the answer there was a distinct shortage in that company's 8 and 16 mm cameras. One of the latter's principal competitors denied, also through its principal representative, there was any present shortage in equipment for amateurs. He admitted there had been, but not in a couple of months.

It looks like a busy year for those interested in amateur equipment and goings-on.

HOW TO GET STILL FROM MOVIE FRAMES

THE LAST THING the average cinemateure thinks of while shooting movies is getting companion "still" pictures. Only later, when the movies are shot, edited and (let us hope!) titled, does the matter of the usually missing "stills" come to mind. Then it is usually too late by several months and often several hundred miles to fare forth and make them.

Granted good cinepictures, however, it is yet possible to get those "stills." How? By making them directly from the cine-film!

There are three principal methods of getting such "stills." Each is good; which is best depends to a great extent upon your individual skill, facilities available, and personal preference. We may happen to prefer one way of doing the trick, while our neighbor may prefer another. As long as both get good results, we've really nothing to argue about.

The first method, and probably the oldest, is to use the reversal film in some type of enlarger, to make an enlarged negative. Quite early in the growth of 16mm. filming Bell & Howell brought out an accessory for this purpose, which was used with its Filmo projector. The gadget consisted sim-

ply of a longish, pyramidal hood which fitted on to the projector in place of the lens.

In the small end of the pyramid was a simple shutter mechanism. At the far end was a filmpack adapter which took a standard $2\frac{1}{4}$ by $3\frac{1}{4}$ inch film-pack. The dark slide of the pack adapter was painted white on the outside, and a flap in the upper surface of the hood opened so that you could focus and use the white slide as a screen.

Minnecam Enlarging

In use, you simply ran your projector slowly until you found the scene and the frame you wanted. Then you stopped the projector and closed the copier's shutter. After closing the inspection port you withdrew the slide exactly as though it were on a camera. Then you made a snapshot exposure with the copier's shutter.

When your filmpack was developed you had a "still" negative of your frame, already enlarged to approximately 2 by $2\frac{1}{4}$ inches in size. Unfortunately, you had little control over your copying exposure. If your cinefilm was underexposed your copy was likely to be washed out; if the cine frame was underexposed the copy was likely to be dark. And there was sometimes something to be desired as to definition.

A more modern version of this, and a more controllable one, is to use a really good miniature camera enlarger, like those made for use with Leica or Contax negatives. Instead of enlarging paper, use a sheet of cut film, preferably some type such as a Commercial or Commercial Ortho emulsion. This way you have a more complete control over your exposure, and with a modern minnecam enlarger you can get a negative that will permit as much enlargement as the grain size of your original cinepicture will allow.

Method No. 2 is a variation of this which gives a direct positive from your reversal film's positive image. Instead of using an ordinary plate or cut film for your enlargement, and getting an enlarged negative, you may use Eastman Direct Positive paper, which is reversed into a positive.

This process is very simple, and has definite points of superiority over the ordinary enlarged-negative method.

Those who use this method state that your enlargement can be exposed, processed, dried and ready for use in

five minutes. The paper is waterproof and the chemical operations are rapid. With a good enlarger, the problems of grain and definition should be minimized. Further, exponents of the process are loud in their praises of the better gradation secured, especially in the intermediate grays.

On the other hand your exposure in making a print by this method must be absolutely correct, as even its best friends admit the paper has almost no latitude. Likewise the process inevitably reverses your picture as to left and right, which can be extremely embarrassing if there is any printed matter in the shot.

To a certain extent you can get around this by putting your cinefilm in the enlarger with the emulsion away from (rather than toward) the lens. But this straightens your picture at some sacrifice of definition. And in enlarging from so small an image as a 16 or 8 mm. frame definition is not lightly to be thrown away.

Copy-Negatives with a Minnecam

Method number three, which is, it is admitted, a personal choice, is to copy your 16mm. film with a miniature camera. Both the Leica and the Contax supply reproduction stands for



Above, copied from Kodachrome 16mm. film with a Contax. A 23-A filter used in copying to darken sky background. Below, print from copy-negative made direct from black-and-white 16mm. frame. Note flat result, due to lack of control over copying exposure.



Copied from 16mm. films by enlarging on Direct Positive Paper. Upper, underexposed copy. Center, overexposure. Bottom, correct exposure. Photos by R. Lunley.

copying small objects. The Contax outfit, which the writer uses, consists of a U-shaped base from which a tubular member extends upward to support the camera. The camera itself is fitted into the device by removing the lens, and fitting the camera on to a member that fits on exactly as the lens does.

The camera-lens is then fitted to this member with any combination of four extension tubes of various lengths, which focus the lens at the distances required to make copies of various scales. The camera slides up

and down the tubular support, locking into place according to this scale. Thin metal masks are supplied, fitting into the U-shaped base to "frame" the picture to be copied.

The combination the writer uses in copying 16mm. frames is the one which gives a 1:1 copying ratio. The mask used is exactly the size of a minnecam double frame picture. This is rather too large for 16mm., but the slides are easily masked down to 16mm. width with black tape or cardboard strips. Lengthwise, you copy about four 16mm. frames. This is a

practical advantage, since you can be fairly sure of getting one out of the four with a satisfactory phase of motion.

This whole installation has been planned for copying ordinary photographs, printing and the like, which can be photographed in the usual way, by reflected light. It is easy enough, though, to arrange the same set-up to copy your substandard scenes by transmitted light, as is necessary.

Simply set up your copying stand on a fair-sized pane of ground glass, supported by a couple of tables, a couple of kitchen chairs, or anything else that is handy, one at each end of the pane. Underneath this glass place a Photoflood lamp in a clamp-on reflector. And there you are!

You simply select your scene, line the minnecam on it, and make your exposure. The result is a copy-negative which can be enlarged very satisfactorily. Quite good sized enlargements may be had from good 16mm. frames, and prints up to 4 by 5 even from indifferent 16mm.

You have complete control over your copying exposure, and an almost infinite range of emulsions to use in the copying. The tonal values are definitely superior.

Copying Kodachrome

Lastly, this allows one to make really pleasing copies from Kodachrome film. Copying Kodachrome by any other method often leaves quite a lot to be desired; for instance, making a copy on an ordinary positive-type copying emulsion, or on ortho cut-film, will not give you an accurate black-and-white rendition of your Kodachrome scene's colors.

Copying by minnecam, on the other hand, gives you almost the same freedom and control you would have photographing the scene direct. First of all, you can use a panchromatic film for making your copy negative. If that isn't enough, you can filter your copy exactly as you would in making a direct photograph.

For instance, in copying a close-up shot of a person against an intense blue sky, you can use a "G" or a 23-A filter (depending on the kind of film you are using for the copy-negative) and bring the sky down to a dark gray or black that gives the same feeling the intense blue does in color.

In any type of copying from substandard film you will find the closer shots generally make the most successful copies. In longer shots, your scene has to be unusually well defined—clearly set off in both line, mass and gradation—if it is to make a copy of any size.

But don't let anyone fool you. Sixteen millimeter frames can be copied successfully—and it isn't half the task you'd expect!

SAN FRANCISCANS HAIL NELSON'S "TRAIL SONG"

UNDER THE AUSPICES of the San Francisco Recreation Commission the premiere of "The Trail Song" was held on the evening of Thursday, April 8, in the High School of Commerce Auditorium, San Francisco. The picture and its excellence were described in the April issue of this magazine under the caption "The Poet-Photographer." The direct reference was to Clifford Nelson, director of visual recreation in the Bay City, responsible for this remarkable Kodachrome record of a journey in the High Sierras and along the ocean front of the Northwest.

The picture was dedicated to Josephine D. Randall, "in appreciation of her ten years of loyal service as superintendent of the San Francisco Recreation Commission." The other members of the commission are Mayor Angelo J. Rossi, Mrs. Sigmund Stern, president; Miss Alicia Mosgrove, the Rev. Leo W. Fowleson, Charles F. Traung, William J. Raffette, John McLaren and Joseph P. Nourse.

Fifteen hundred distinguished citizens of San Francisco, especially invited, by their generous and even enthusiastic applause attested their enjoyment of the program presented by these members of the city's recreation department:

San Francisco girls' choir, San Francisco boys' choir, Junior Civic Symphony Orchestra, Ocean View Playground, Junior dance group, Senior dance group and Hayes Valley Cottage.

Evening's Program

Since "The Trail Song" had been shown at the Bell and Howell auditorium the producer had added several sequences to the subject. That there might be no doubt that sound and dialogue would fill the unusually large auditorium in San Francisco Bell and Howell sent from Los Angeles a 1000

wt. sound projector with the company's sound equipment and a booster amplifier.



Scene in Clifford Nelson's Kodachrome feature the accompanying title of which is "A Burst of Molten Silver Born of Mountain Snow."

The following constituted the evening's program:

Caliph of Bagdad, Junior Civic Symphony Orchestra; "San Francisco Recreation Activities," a motion picture; "Aztec Metropolis," Clifford Nelson; Military Overture, Junior Civic Symphony Orchestra; Songs from "Robin Hood," San Francisco Boys' Choir; Mexican and Hungarian dances, Play-

Continued on page 222

THERE'S RIGHT FILTER FOR EVERY FILM TYPE

By Ned Van Buren

DURING THE COURSE of my ten years as a photographic and filter consultant for one of the major film manufacturers a most amazing number of substandard filmmakers have asked me questions about filters and filtering. Like anyone else I enjoy answering questions and telling the other fellow what to do—but it is really irritating to be constantly faced with the bare question "What filter should I use?"

Nobody would walk up to a doctor and ask him, "What pills should I take?" without giving him at least a hint as to where he felt a pain and some particulars as to what kind of a pain it was. And not even the old-fashioned family doctor whose favorite prescription was a dose of castor oil would suggest a remedy without knowing what his pill was supposed to remedy.

This business of prescribing filters is a good deal the same as prescribing pills. There are a lot of good filters, just as there are a lot of good pills. But no filter ever made can possibly prove a cure-all for all photographic problems. And just as a prescription of strychnine will cure a person with one ailment and kill some one with another trouble, so will any given filter solve one set of photographic troubles—and just as surely ruin shots made under other circumstances.

The first thing to consider in prescribing a filter is, what effect do you want to get? Next, what kind of film are you using? Finally, what conditions of light and subject govern your shot?

Only with the answers to all three of these questions can anyone tell you what filter to use.

Three Filter Type Effects

Let's look at the first one. Professionally speaking, there are three general types of filter effects: 1, normal "orthochromatic" correction; 2, a mild overcorrection; 3, extreme overcorrection.

This normal correction means making the film see things approximately the same way your eyes do, but of course in black and white. If a color is bright to the eye you want it light on the screen, but you don't want the film to lighten some color your eye regards as more or less neutral simply because the film happens to have a fondness for that color. In other words, you want your shot to look natural—so natural no one thinks of asking "What filter did you use?"

Your "mild overcorrection," on the other hand, means something where you can be more conscious of filtering. Generally speaking, it means darkening the sky enough so clouds stand out more than ordinarily strong. Often, too, it means adding a certain

amount of snap and contrast to your picture.

Extreme overcorrection means playing filters for all they're worth—pulling the skies down to a jetty black so that the clouds jump right out at you, making night effects in the daytime, and so on.

Each of these effects calls for a different type of filtering.

Filter Follows Film Type

By the same token, producing these various effects on different types of film calls for different filters. For instance, the cheapest ortho types of film are very color blind; they "see" the violet, blue and perhaps some green, but their vision begins to peter out as we get into the yellow, and from there on they're completely blind. If you use a yellow filter on a film like this, you'll get a very pronounced result. With a K-2 all of the ultra-violet, violet and most of the blue will be cut out.

That leaves only a little bit of blue-green, green and yellow-green light to work on the film. First, you'll have to let a lot more light through (that is, give a larger exposure) to get a picture at all. Second, you'll get a whale of an effect, with the sky quite noticeably darkened, since most of its blue light is eliminated, and the yellows and yellow-greens lightened.

On the other hand, take a Superpan type of film: This "sees" all colors, its vision extending well up into the reds. Put that same yellow K-2 filter on and you get virtually no effect. The same rays are stopped, of course, but the film has added sensitivity throughout, and is moreover sensitive to light of so many other colors (and very few things reflect light of a pure color) that the filter has little or no effect.

The matter of light-conditions has just as much influence on your results, too. Suppose, for instance, you want to make a strongly corrected shot of some interesting clouds. On a good day, when you have a clear blue sky, this is easy, no matter what film you use. Simply put on the filter that will take out all or most of the blue in that sky, and you've got it.

Many Filters Listed

But—suppose the day is one of those hazy ones, with a dirty whitish sky. Your filter would take out the blue of the sky, but there isn't any to take out; instead, the sky is a glare of whitish light which is made up of a mixture of all colors. Most of this will still get through your filter, so the result on the screen is a pale-gray or whitish sky, against which the white clouds are lost.

All of this sounds like no end of a problem. Well, you can make it just as complicated as you want to. You can carry a filter-assortment so big



Normal correction—Aero 2 filter on Super Sensitive film.

you'll need a truck—the Eastman company alone lists well over a hundred different filters.

But you don't need to!

After all, what you are after is three basic types of filter effects—normal correction, mild overcorrection and extreme overcorrection. If you are a really sensible camerist, you will stick pretty closely to one kind of film. You'll be quite long enough learning how to use all its possibilities fully! And you'll learn to recognize weather conditions when no filter can possibly help your shot.

On the face of it it looks as though you could cut your 97 possible filters down to a sensible kit of three. Well, so you can if you choose them correctly and use them properly!

Just which filters you choose must necessarily depend on what type of film you generally use.

To begin with, suppose you use the average Superpan reversal film. For a normal correction, your best choice is an Aero 2. For a mild overcorrection and stronger contrast, probably the best is the G. For the more extreme overcorrection your own taste had better dictate the choice. The 23-A is excellent if you don't want things too extreme. Otherwise, you can use a heavier red filter like the F.

If you use ordinary Pan film you'd better modify this one step down the scale, and choose a yellow filter like the K-2 for a normal correction, use the G for increased contrast and a moderate overcorrection, and a 23-A for the heavier overcorrection.

Exposure Important Factor

Using the Plenachrome type of film a K-1 will give you a mild correction, an Aero 2 a moderately strong correction and the G is the absolute limit for overcorrection.

Most of the very cheap ultra-economical types of film frankly admit they aren't intended for use with filters. At the best, a simple yellow filter is about all you can use under any circumstances—and even that is not especially to be recommended.

With any of these filters, on any type of reversal film, exposure is a highly important factor. Most of the filter factors published are for regular motion picture or still negative emulsions, and are none too accurate with reversal processing and emulsions. It is a good idea to make a few tests, using the published factor, and then successively overexposing and underexposing several "takes" of the same scene, so you will have an accurate idea of how to modify these factors to get the results you want with reversal film.

Generally speaking, you will get more pronounced effects if your exposure is kept on the low side. In most blue skies, for instance, there is gen-



This also used an Aero 2 filter and Super Sensitive film—but changed light conditions changed the result.

erally quite a bit of unnoticed white light; and a full exposure permits some of this to work on the film, effectively counteracting the dark-sky effect you are after.

If you hit your exposure "right on the nose," or are a trifle under, this is not so likely to happen. In making special filter effects on reversal film it also is almost always necessary to compensate in your exposure for the automatic processing control so often used, which tends to print your scene for a normal effect rather than for the effect you aim at.

In any event, half the secret of getting good filter effects is accurate exposure. The other half is keeping your filtering simple and knowing what filter to use to bring the effect you want.

VISUAL EDUCATIONISTS MEET

At the seventh session of the National Conference on Visual Education and Film Exhibition (De Vry Foundation), Chicago, June 21 to 24, there will be almost continuous show-

ings of selected industrial and educational films as examples of the best current practice. These will be both silent and sound, 16 as well as 35mm. films.

Sessions will begin in the Webster Hotel, opposite the Francis W. Parker School, 330 Webster Avenue, at 9 o'clock each morning and continue until 5 o'clock, with one hour for lunch. Evening sessions begin at 7:30.

After the showings, advertising and school men will discuss the films. Discussion will include photographic and scenario technique, advertising, sales or training values and educational values. As a rule representatives of producers and sponsors will be present and will lead the discussions.

It will be the one chance of the year actually to see the largest collection of worth-while non-theatrical films exhibited at any one place, anywhere.

The dates, a week before the NEA at Detroit, will be found convenient for a week's stopover in Chicago.

GERMAN CINE STATISTICS

The Reich Film Chamber has recently released statistics showing the number and size of film theaters in Germany as of December 31, 1936, reports Trade Commissioner R. M. Stephenson from Berlin. According to the Film Chamber's compilation there were at the end of the year 5,302 cinemas in Germany having a combined seating capacity of 1,943,049. Of these, 2,316 with 1,195,906 seats were playing daily. As compared with the last previous estimate, (April 30, 1936) the statistics indicate an increase of 29 in the number of cinemas and of 14,999 in seating capacity.

CRAIG

SPLICER and REWINDS



CRAIG JUNIOR COMBINATION \$8.50
Junior Splicer with two geared rewinds
all mounted on 21" board.
CRAIG MOVIE SUPPLY CO.
1053 So. Olive St. Los Angeles, Cal.

Getting Professional Diffusion With Amateur Movie Camera

ANY DISCUSSION of diffusion for either amateur or professional cinematography should be prefaced by the statement that there can be no best method of diffusing. Like buying clothes, diffusion is a matter of personal taste. What suits one may not please another. Thus in the studio we find one outstanding cinematographer using Scheibe diffusion screens, while on the next stage some equally distinguished fellow-worker is getting equally pleasing results with Harrison's diffusers, gauze nets or diffusion discs.

With equally meritorious results on the screen we cannot say one man is right and the other wrong; each has simply chosen the method the effects of which appeal to him and the action of which suits his method of camerawork.

There are, however, a few fundamental rules which should apply to all types of diffusing media and to all types of camerawork—substandard quite as well as standard.

The fundamental reason for using any type of diffusion is to produce a pleasing, natural softness. This softness should never be confused with the exaggerated fuzziness which sometimes passes for diffusion among the unskilled. If left to themselves our highly corrected modern anastigmats reproduce a scene in vastly more detail than any eye can see it.

Technical Result

As this is written the writer can look through a window at a rose bush some two hundred feet away. The eye notes the spots of color which are the blooms and the dull green masses of leafage. But one is not conscious of each individual petal and leaf. In a photograph these details would be reproduced with microscopic accuracy. The result would be technically accurate, but not truthful as regards reproducing what the normal eye actually saw. In the same way the f:64 anastigmat school of portraiture will in a big-head close-up reproduce every pore and blackhead in a way that would delight a dermatologist, while you or I conversing with the same person at equally close range would ignore these details and "see" only the personality.

In cinematography diffusion is used to make the lens see things with

something of the kindly imperfection of the eye.

All Methods to Same End

Every method of diffusion seeks this same end. They all attain it by introducing before the lens something which slightly breaks up the rays of light which form the image. The extent of this breaking up determines the amount of diffusion produced. The means used to do it govern the effect on the screen.

Here is the key to a basic rule in diffusion. If we can vary the extent to which the light rays are broken up we can vary the amount of diffusion we get under given circumstances.

More Diffusion for Close Shots

But suppose we move from a long shot to a close-up. Our image is bigger on the film. The points of light which form it are bigger. Consequently a degree of breaking up which will diffuse the smaller image of a long shot to a given extent won't produce nearly so much diffusion in our close-up.

Therefore if we want to maintain a consistently even effect of diffusion in our long shot and its related close-ups we must use a heavier degree of diffusion for the close-ups. Suppose we arbitrarily call our long shot diffusion No. 1, we must use a heavier grade—No. 2—to match the effect in our close-up. For a medium shot we should use an intermediate grade, which we might call No. 1½. That is

the whole secret of diffusing artistically.

Through these various shots, however, we should use the same method of diffusing. If in our long shot we use a diffuser which breaks the image up in one way, and in our close-up a diffuser which breaks it up differently, we are going to get two different effects in our successive shots: they won't match, even though the degree of diffusion in each is properly proportioned.

Due to the much smaller frames in 16mm. and 8mm. film, the writer has found it as a rule wiser to use a considerably lighter degree of diffusion for substandard filming than he would use for the same shot in 35mm. Again, no firm rule for this can be stated, for some lenses give a crisper, harsher picture than others, requiring heavier diffusion for comparable effects, while individual taste governs the selection of any effect as desirable or otherwise. The writer's preference is for an almost imperceptible diffusion which softens the picture without becoming noticeable.

Three Types of Diffuser

Professionally there are three main types of diffusing media. There are the Scheibe and Harrison diffusing screens—glass squares like colorless color filters, coated with an all but invisible coating which serves slightly to break up the light rays. There are the Eastman diffusion discs—round pieces of optical glass in which patterns of concentric circles or spider-web tracery diffuse the image. Finally there are gauze nets—simply frames of stout celluloid or metal over which are tightly stretched one or more thicknesses of fairly coarse mesh gauze such as women once used for veils.

The first and last of these are readily available for amateur movie use. The second, in a modified form, is available in the form of the Kodak pictorial diffusion attachment made for still cameras. (This should not be confused with the Kodak diffusion portrait attachment, which embodies a supplementary lens to alter the focus of the camera lens.)

These attachments, however, are made primarily for cameras with larger lenses than fitted to most substandard cineboxes, and as they de-



No diffusion used in this shot, made especially for The American Cinematographer by Paramount productions.

pend for their effect upon the whole pattern in their glasses, while with the smaller cine lenses only the center of this pattern would be utilized, they would probably not be satisfactory for cine diffusion.

Diffusion Screens

Both Scheibe and Harrison make excellent diffusion screens, in a wide range of grades. They can be had in any size that will fit your camera's filter-holder and either square or round shapes.

In both types the screens are numbered so that the lower the number the less diffusion is had.

The Harrison diffusers begin with No. 1 and extend up to a No. 4. For 16mm. use the No. 1 is probably the most suitable for cine long shots and the No. 2 for close-ups.

George Scheibe, who originated effect filters and screens, has been making his excellent diffusers for studio use for more than twenty years. His diffusers originally began with No. 1, but as studio technique advanced he has produced lighter and yet lighter diffusers, until today the range extends to the all but imperceptible diffusion of the No. 1-128.

For 16mm. filming the writer leans strongly to Scheibe's No. 1-64 for long shots, the No. 1-32 for medium shots and the No. 1-16 for close-ups. For more pronounced diffusion, or for extreme close-ups, the No. 1-8 is excellent. These screens do not distort the image or produce halation, but they impart a very pleasing softness.

Gauze nets are quite universally used, and are very easily made. Moreover, by varying the type of mesh used, or by using more than a single layer of gauze, varying degrees of diffusion can be had. A black fabric is almost always used. To make a gauze net you begin by making a frame to hold the gauze. If you want to be stylish you can use a sheet of heavy celluloid or Kodaloid, with the center cut away to leave only a frame.

Making Gauzes

The writer, recently making up some gauzes for his 16mm. filming, used a much more prosaic material—heavy cardboard. This was simply cut from a box that originally held a dozen cut films. To suit his filter holder the frames were two inches square with a square opening about 1 1/16 inches in size cut in the center; the remaining frame, though less than 3/16 of an inch all around, was quite adequate.

Putting the gauze on the filter is simple. Simply fasten one end of the gauze to a board with thumb tacks. Next coat your frame with some good adhesive. The writer used a new transparent "rubber cement" special-

ly made for mounting photographs; the cardboard, being absorbent, required two coats. As soon as this was growing "tacky" the frame was slipped into place on the board, and the gauze stretched tightly and smoothly over it, fastened on the other side with more thumb tacks. Next, the cement was again applied to the edges of the frame through the gauze, taking care not to smear cement on the central open part.

A few moments later the cement was dry. Out came the thumb tacks, and all that remained was to trim the diffuser from the large piece of fabric. Making a double-layer net simply meant repeating the process, putting first one layer of gauze and then a second on the frame.

If you use a camera which, like the Cine Kodak Special, permits focusing your full frame image on a ground glass screen, it is possible to use what the studios know as "burn outs." These are gauze nets in the center of which a hole of any desired size or shape has been burned. A cigarette is the most common tool for this.

Clear-Center Diffusers

In a single net this will give a clear center with diffused edges, while with a double net, one layer of which is burned out, you can get a light diffusion in the center and heavier diffusion elsewhere. Similarly, if you are filming two people together, and want one more diffused than the other, as might be the case when a man and a woman are together (the woman usually gets the most diffusion), you can burn out the gauze on the man's side of the picture, leaving whatever is needed to soften the woman. It is also possible to use the burn out net in combination with any other type of diffuser. Naturally, too, any diffuser can be used in combination with any desired color filter.



The only change between this and the other photograph is in the use of a diffusion disc here. Note more pleasing quality of face, and how wrinkles in the hand are erased.

The normal position of professional diffusion devices is either on the lens itself or quite close to it in a matte box. The exact position does not seem to make too pronounced an effect, though if the diffuser is too far forward it may possibly cut the exposure value, and in some cases give a lessened degree of diffusion. Unlike color filters, none of the diffusing devices discussed here require any change in the exposure.

Must Not Be Fuzzy

For normal 16mm. use, it is seldom necessary to diffuse long shots. The most valuable use of diffusers is in the closer shots of people. In these a slight diffusion is a very real help, for it smooths out wrinkles and helps to conceal minor facial blemishes, and, in a word, makes your pictured rendition more pleasing.

But no matter what means you use to produce your diffusion effects, never let the diffusion become obvious. Any photographic trick overdone is bad. You will never see a well photographed professional film in which diffusion is used to the point of being obviously "fuzzy."

Some pictures, it is true, permit more diffusion than do others. A picture like "A Midsummer Night's Dream," for example, allows—even demands—far more diffusion than would be possible in a harsher story like "Dr. Jekyll and Mr. Hyde." But professional cinematographers learned long ago to diffuse so delicately that the diffusion is felt, rather than seen.

If the amateur is to imitate the means used for diffusion by the professional, he should take care also to imitate the professional's restraint in using the device. This is doubly important in amateur films, since too many inept novices have already made audiences unpleasantly aware of mushy, out-of-focus shots as a supposedly "amateur" failing.

The really serious maker of amateur movies of course knows enough to avoid this elementary error: but exaggerated diffusion can create a similar effect on the screen.

Diffusion, properly used, can do much to make amateur films more pleasing. But use diffusion restrainedly—when in doubt, use less than you think necessary, rather than too much.

After all, the best diffusion for any scene is that which gives a natural softness without creating a fuzziness which is unnatural.

AMATEURS, ATTENTION

The attention of amateurs is called to the announcement on Page 223. The American Cinematographer will award cash among other prizes in its 1937 contest.

Brooks Is Agent for 'Night Photography'

IT HAS always seemed an easy matter in Germany to get an expert to write an article, or even a book, on almost any conceivable topic. The German photographic press particularly has been extremely prolific and can count itself fortunate in having in its ranks Dr. Walther Heering, a photographer-writer of rare skill. Dr. Heering is also a publisher of note. The "Golden Book of the Rolleiflex" is an example of his publishing achievement familiar to all American students of fine photography.

His recent book on photography at night proved so popular that it was translated into English. This has been accomplished and, through the efforts of Burleigh Brooks, New York, it is already available in this country.

Although a book of but fifty-four pages it is crammed with information on all phases of the subject. The author's rapid comprehension and practical solutions of the problems encountered by any photographer attempting this fascinating subject is a pleasure. The book is divided into five sections, covering, in turn, the problems of time exposure, snapshots at night, fireworks, flashlight photos at night, and a discussion of infrared photography which allows pseudo-night effects in the daytime.

"Night Photography" is finely printed and beautifully illustrated, in keeping with the best traditions of the Continental printers' craft.

"Night Photography," by Dr. Walther Heering, 54 pages, 43 illustrations, text in English, paper covered, price \$1.

ENGINEERS ENTERTAIN

An especially attractive program for the women attending the Society of Motion Picture Engineers' convention this month is being arranged by Mrs. K. F. Morgan and Mrs. P. Mole, hostesses, and their Ladies' Committee. A suite will be provided in the Roosevelt Hotel, where the women will register and meet for the various events upon their program.

ARGENTINE 1937 RELEASES

Trade papers report that at least thirty-two Argentine-made feature films will be released during the year 1937, an estimate which probably will be increased during the course of the year, reports Assistant Trade Commissioner Joe D. Walstrom, at Buenos Aires.

Here's the Answer

Continued from Page 210

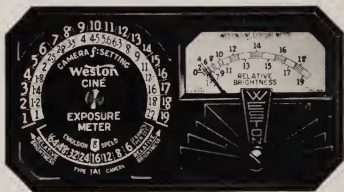
be equally good whether the lens is used on a 35mm. camera or a 16mm. camera, for these factors are dependent upon the focal length and aper-



WHY go through another summer . . . another day . . . constantly taking chances on exposure. Take a WESTON. Use it every time you shoot. Get the consistently exact exposure results that a WESTON alone can give. From the day you start using it, you'll never know any exposure problem exists. See both models at dealers, or write for literature . . . Weston Electrical Instrument Corporation, 598 Frelinghuysen Avenue, Newark, New Jersey.

Model 819—simplified Ciné model, for use with all types of movie cameras, all film, including color.

Model 650—for use with any type of camera—any film, including color.



WESTON Exposure Meter

ture of the lens and not upon the size of its image.

On the other hand, the tables on camera set-ups and lens angles apply only to 35mm. film with the standard sound aperture, 0.631 inches by 0.868 inches. They can, however, be applied to give an approximate guide for 16mm. work if the figures for any given lens on a 35mm. camera are considered as applying to a lens of half that focal length on a 16mm. camera.

The lens angles given for a 50mm. lens on 35mm. film may be taken as a good practical guide to the angles of a 25mm. lens on a 16mm. camera: at 100 feet, the 50mm. lens used on

a 35mm. camera takes in a field 32 by 44 feet, while at the same distance a 25mm. lens on a 16mm. camera covers a field of 28.9 by 38.6 feet.

Thus it will be seen that while it is not in this case absolutely accurate to assume the figures given for a given lens on 35mm. may be applied to one of half its focal length on 16mm., the assumption may none the less be utilized as a guide sufficiently accurate for many practical purposes.

Such basic data as that relating to filtering, make-up, compensation for changing shutter openings or camera speeds, developing times, formulae, etc., are equally applicable to 35mm. or 16mm. practice.



LOS ANGELES 8MM

The regular meeting of the Los Angeles 8mm Club was held in the Auditorium of Bell and Howell, 716 North La Brea Avenue, April 13. In the absence of President Dr. F. R. Loscher, Vice President John E. Walter was acting president. The minutes of the previous meeting were read and approved.

Membership buttons were presented to eight new members by Social Chairman Alexander Leitch. Buttons were given to Mrs. Charlotte Armstrong, Joseph P. Hughes, Clarence Gilley, Theodore H. McMurray, Ted Holzhausen, Art Zahn, Dr. John McKibbin, and Joseph Lynn. Mrs. Charlotte Armstrong was appointed corresponding secretary to assist the secretary in his duties of the club.

A lengthy discussion of the club publication, *Through the Filter*, was held, many members voicing their opinions and suggestions. It was decided the name *Through the Filter* be continued. M. R. Armstrong was elected to serve as editor, with E. J. Brouillette as his assistant for the remainder of the club year. The editor was instructed to decide upon the number of issues to be printed during the year.

While all members are to consider themselves reporters, special reporters, Jane Gay, Mr. Brouillette, Mr. Svenson, and Mr. Niersbach were appointed as the staff.

The subject of the purchase of a mimeoscope was put before the club. After a short demonstration and discussion it was agreed it was a necessity in the editing of the club paper.

Mrs. Alva Cadarette, chairman of the ladies activities, gave a report, introducing the new woman member.

The usual ten-minute period devoted to answering queries by the technical committee was as popular as usual, and many interesting problems and subjects were discussed.

Several very interesting films were shown for criticism—one of the most outstanding was a short entitled "Golf Widow" by Robert W. Teorey.

Another interesting demonstration of make-up was given by Luis Philippe of Max Factors. Mrs. Alexander

Leitch kindly acted as subject for Mr. Philippe in his presentation of regular panchromatic make-up as used in the studios. Much benefit was derived from Mr. Philippe's demonstration and was enjoyed by all members. Mr. Philippe obligingly answered all questions put to him regarding the make-up and its uses.

M. R. ARMSTRONG, Secretary

GOERZ PRECISION

In every step of lens manufacture, Goerz Precision is evident. In the careful selection of the raw material, in the meticulous grinding and polishing, in the critical supervision of each detail, in the final, rigorous testing—this precision holds—and affords to users of Goerz Lenses an unequivocal and unconditional guarantee of their quality and performance.

Kino-Hypar f/2.7 and f/3;
Focal Lengths 15 to 100mm.

Cinegor High Speed Lenses—
Ideal for Color Work. f/2
and f/2.5; Focal Lengths 40
to 100mm.

Telestar—A lens of the telephoto type. f/4.5; Focal Lengths 6 1/4 to 15 1/2 inches.

Catalog B 4 on Request

C. P. GOERZ
AMERICAN OPTICAL CO.

317 East 34 Street New York

8 Enlarged TO 16 Reduced TO 8

Geo. W. Colburn Laboratory

Special Motion Picture Printing

1197 MERCHANDISE MART

CHICAGO

HUGO MEYER *Ciné*
SPEEDS 1/15 TO f/55
LENSES
HUGO MEYER & CO.
245 W. 55 ST., NEW YORK

CINEMA CLUB EXHIBITS

The Los Angeles Cinema Club celebrated its April meeting by holding on its regular meeting day a display of photographic equipment, a dinner for all and a bridge party following for those who felt so disposed. The gathering was held on the 6th at the Arcady Hotel, downtown Los Angeles. No attempt was made to conduct a regular meeting in view of the general holiday mood.

The equipment display opened at 3 in the afternoon. The attendance was gratifying to the sponsors for the exhibit, especially so in the evening. Among the firms exhibiting their wares were the Eastman Kodak Company, Craig Movie Supply, Bell and Howell, Victor Animatograph, Thalhhammer Company, Harrison and Harrison, Home Movie, Hollywood Camera Exchange, American Cinematographer, Peterson's Camera Exchange and Baisley and Phillips, Inc.

Many of these were elaborate and of unusual interest.

PHILADELPHIA CINEMA

The meeting of the Philadelphia Cinema Club was held April 13 at the Hotel Adelphi, which will continue until further notice to be the meeting place of the club. The occasion was the first in the second year of the organization.

Frederick G. Beach, technical editor, Amateur Cinema League, Inc., was the speaker, his subject being "What Is Wrong with Our Movies."

Member Arthur J. Hurth presented his 8mm film, "Motor Trip Through White Mountains," and member Hilbert B. Irwin presented a 16mm film, "Vacation Reflections."

Dr. V. B. Sease, A.S.C., Director of the DuPont Film Manufacturing Company's Redpath Laboratory, Parlin, N. J., will be the speaker for the meeting May 11. Dr. Sease is an outstanding figure in the professional movie field. As a member of the New Brunswick Camera Club he is in close touch with the amateur's problems. A. L. O. RASCH, Secretary-Treas.

SAN FRANCISCO CINEMA

The monthly meeting of the Cinema Club of San Francisco was held April 27, the occasion being marked

by a dinner, at the Woman's City Club. Member J. O. Tucker talked on "Titles," and demonstrated several methods of making them.

Member Harry Miller screened several reels of Kodachrome, among these being "Death Valley," a desert view. E. G. PETHERICK, President.

PARAMOUNT MOVIE CLUB

The fourth monthly meeting of the Paramount Movie Club was held in the studio's projection room April 1. While the members are employees of the Paramount Studio they are not connected with the camera department—the are Simon Pure amateurs.

The guest speaker of the evening was F. R. Abott of the Bausch and Lomb Company, who talked on "Lenses, Stops and Their Uses." The screen feature of the evening was Bausch and Lomb's "Eyes of Science."

Other films shown were "Christmas Eve at Home," by Don Arlen, and "Carnival of Winter Sports," by Wilton Carneal.

STATEN ISLAND CINEMA

At the regular meeting April 15 of the Staten Island Cinema Club the following program was presented:

Talk on "Making a Photoplay," by C. J. Carbonaro, vice president of the Metropolitan Motion Picture Club. Mr. Carbonaro has had wide experience both as an amateur and a professional in making movies, and his talk was interesting and instructive.

Four 16mm. pictures were presented by Mr. Carbonaro to illustrate his points. Snapshots were distributed in pairs, one showing what the movie camera saw, and the other showing the actual set-up.

Other films projected were "Missis-sauga Canoe Trip," by member F. D. Koehler, Jr., and two 16mm. sound-on-film subjects. The first, "The Haunted Ship," is a reproduction from a well-known animated cartoon, and the other was taken on 16 and carries the greetings of the president of the Australian Society of Radio Engineers to the annual convention of that profession in this country. Both were projected on an RCA-Victor 16mm. sound projector.

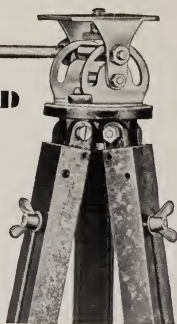
Vice President E. W. Wilby, a radio engineer, demonstrated 16mm sound equipment, including the RCA-Victor sound camera and projector.

The next regular meeting will be held on May 20, at which time Edwin Schwarz will give a demonstration of his titling methods, actually composing, shooting, developing and projecting the titles during the evening. There will also be shown "Amateur Advance," borrowed from the Amateur Cinema League, showing the progress in 16mm. movies since they were first introduced. The film has been made up from films in the

TRIAx CINE TRIPOD

A rigid, secure, 4-section tripod of weight-saving, duralumin construction. Provided with a Pan-Tilting top. A scale, subdivided to every 15 degrees, is etched on the round panning top for convenience in synchronizing the edges of a picture. A tilting lever, when pressed down, locks the panning feature and the extending handle grip, when tightened, locks the tilting feature. The tripod may be tilted to a 90 degree angle, thus facilitating table-top photography and shots from above. It opens in a jiffy. The first section extends by merely releasing a thumb-screw—the other three sections open automatically by means or pressure on the Triax spring locking device. The Triax can be shortened by simply folding back one section. Beautifully made and easily manipulated, durable and life-time lasting. It extends to about 60 inches (closed, 21") Weight about 3 1/2 lbs.

Literature on Request



\$15.00

**BURLEIGH
BROOKS**

Incorporated
127 W. 42 St., New York

League's Club Film Library. F. D. Koehler, Jr. also will present a color film taken last summer.

GEORGE J. SMITH, President.

San Franciscans Hail Nelson's "Trail Song"

Continued from page 215

ground Children; Hungarian and Spanish folk songs, San Francisco Girls' Choir; Carnival, Playground Children; "Merry Wives of Windsor," Overture, Junior Civic Symphony Orchestra; "The Trail Song," Clifford Nelson.

Producer Nelson has received an urgent message from Atlantic City asking him to show his pictures at the National Recreation Conference.

Word received from San Francisco at the end of the month indicated Mr. Nelson's final acceptance of the invitation, with accompanying pressure of work in preparation for the presentation to the conference of his pictures.

The visual recreation supervisor will take along his typewriter. There is a strong possibility that in the sound of the old Atlantic's surf there will be written a story that in the next month or two will deeply interest the readers of this magazine.

CORONATION IN 16MM.

England's coronation will be available to amateurs in authentic 16mm. silent and sound film while it is still a subject of international interest. From its New York office in the R.C.A. building, Pathegrams announces this picture to dealers for release about May 24 in a variety of lengths.



**ST. MORITZ
- SWITZERLAND -**

You can make Titles like this with

STAMP-O-TITLE

Effectively—Easily—Economically! You can make 8 or 16mm. titles—plain or with backgrounds in Black-and-White and Kodachrome. A patented solution outlines the letters and forms a base for the Gold or Silver powder. After use, a special fluid removes letters from background, leaving them clean for future titling.

STAMP-O-TITLE consists of 1 Bottle Patented Fluid, 1 Bottle Eradicator, 1 Vial each Gold and Silver Powder, Fast Cure Rubber Type, Type-Holder, with Handle, Tweezers, Inking Pad, 3 Com-position Backgrounds.

\$5.75

Booklet A-5 on Request

If your dealer cannot supply you, send check or money order to:

The STAMP-O-TITLE CO.

318 East 116th Street
New York



Super X 35mm Film


2 1/2 Cents a foot

postage paid anywhere in the
United States

MORGAN CAMERA SHOP

6305 Sunset Blvd. — Hollywood, Calif.

Make Plans Now for *—1937 Contest—*



The American Cinematographer 1937 Amateur Competition is open to 8mm or 16mm amateurs the world over.

Product of contestants not in this office by November 30 cannot be considered.


There is no restriction as to the number or length of subjects.

Producers receiving professional help in the making of their pictures cannot be permitted to compete. An exception is the inclusion of laboratory made titles.

The board of judges that will pass on the competing films will be composed of members of the A.S.C.

In the 1937 contest there will be cash and other awards. The particulars of these will be announced in the June issue of this magazine.

The subject will be given classifications so that the competition may be fair to all entrants. By this we mean that an entrant having a documentary film will not compete with one based on a scenario. Of course, there will be more classifications than these, which will be created according to the pictures that are received.



Uncle Sam's Salesman

Continued from Page 182

wear, cosmetics, home furnishings, radios, electrical devices and on down the long list of our exports are brought to the outside world by the screen.

The end is not yet in sight for the advance publicity given by this potent salesman! The screen brings to the world our architecture, transportation systems, roads, development of our cities, hospitals, schools, natural resources, scenery, tourist playgrounds and, in fact, our entire social and economic life.

The United States supplies 70 percent of all the motion pictures shown in the theatres throughout the world, and because of their superior quality are demanded by foreign audiences, and, as superior revenue producers, by the theatre owners in all countries.

From 30 to 40 percent of all revenues received by American motion picture producers for their products are derived from foreign markets.

The increase in motion picture theatres throughout the world indicates the upward trend in modernizing when over half of the present number are now wired for sound. During the year 1936 almost 4000 motion picture houses were wired for sound but leaving 50,000 that do not have sound equipment. In Latin America last year it was found that four out of every five theatres are not wired for sound. This trend not only opens up a larger market for sound pictures, but is creating a wide market for the allied picture industries which handle sound equipment and other supplies.

Great Space Buyer

What is the importance of the motion picture production to Los Angeles? Second in importance to petroleum refining, it stands out as one of the greatest users of the materials of other industries. The industry spends around 70 million dollars in newspaper advertising each year. The building industry, transportation, electrical supply trade, printing, heating equipment, fuel and many others depend for a considerable portion of their production on the growth and stability of the motion picture industry.

This means jobs and stabilized purchasing power throughout the entire industrial system of Los Angeles. The motion picture industry too, plays a definite part in world commerce depending upon the long staple cotton from Egypt, natural camphor from Japan, or synthetic camphor from Germany and Italy. Consider the importance of rubber to the industry, supplied entirely from the outside world. Were it not for these products it is doubtful if the motion

CLASSIFIED ADVERTISING

Rates: Seven cents a word. Minimum charge, one dollar per insertion.

FOR SALE—MISCELLANEOUS

WALL SINGLE SYSTEM SOUND CAMERA with direct drive motor, new type movement, variable area high fidelity, galvanometer, microphone, amplifier, lenses, tripod and accessories. Complete, ready for operation. Rebuilt silenced and standard Bell & Howell 170 degree Cameras. Hi-speed gear boxes, Bell & Howell Hi-speed shuttles. Two late model Bell & Howell splicers: Bell & Howell sound printer: pair used Simplex portable sound projectors with 3000 ft. magazines. Precision, DeBrie and Bell & Howell pan and tilt tripods. Bell & Howell 1000 ft., 400 ft. magazines. Motors, sunshades, finders, lenses and all accessories. Write, wire or cable, **MOTION PICTURE CAMERA SUPPLY, INC., 723 SEVENTH AVE., NEW YORK, N. Y. CINEMA.**

BELL & HOWELL 5-WAY SOUND PRINTER. Generators, Panel Control Boards, Duplex Printers, Sound Movials, Developing Machines, Blimps, Dolly, B & H splicers, Mitchell and B & H Silent Cameras, Motors, High Speed Gear Boxes, Light Testers, Projection and Lighting Equipment. Guaranteed optically and mechanically perfect. Send for 1937 Bargain Catalogue, Hollywood Camera Exchange, 1600 Cahuenga Blvd., Hollywood, California. Cable Hocomex.

WE BUY, SELL AND RENT PROFESSIONAL AND 16mm EQUIPMENT NEW AND USED. WE ARE DISTRIBUTORS FOR ALL LEADING MANUFACTURERS. RUBY CAMERA EXCHANGE, 729 SEVENTH AVE., NEW YORK CITY. Established since 1910.

BELL AND HOWELL 170° CAMERA high speed shuttles high speed gear boxes. 400 and 1000 foot Bell & Howell magazines. Bell & Howell tripods. Akley motors. High speed motors. Sunshades, lenses and finders.

Write or Wire
CAMERA EQUIPMENT, INC.
1600 Broadway, New York City
Tel.: BRyant 9-4146 Cable: Cinequip

NEW FULLY EQUIPPED FEARLESS 65MM wide film camera. Ideal for color and experimental work. Extra 35mm high speed movement. Price complete \$2,000.00. Fearless Camera Co., Hollywood, Calif.

BELL-HOWELL CAMERA SILENCED, adapted for color, variable area, single system sound. Complete outfit, like new, ready to shoot. \$2750.00. Hollywood Camera Exchange, 1600 Cahuenga Blvd., Hollywood, California. Cable Hocomex. Phone Douglas 3917.

X TYPE MITCHELL MOTOR, MITCHELL BATTERY, MOTOR ADAPTER, J. R. Lockwood, 523 N. Orange St., Glendale. Phone Douglas 3917

picture industry would be in existence today.

William H. Schroeder, chairman of the Los Angeles Chamber of Commerce, of Foreign Trade Week, points out in proclaiming the eleventh local and third national observance of this week, that the motion picture industry takes our country to the far corners of the world and brings the rest of the world to our doors.

The industry has been a pioneer in bringing needed raw materials from other countries and has in turn created a market for our finished products.

The industry not only has created jobs and purchasing power, but has revealed to the world the high standard of living that the American people have attained.

CONTAX II AND THE FOLLOWING LENSES: one Sonnar F:1.5, 50mm; one Sonnar F:2, 85mm; one Tessar F:3.5, 50mm; one Sonnar F:4, 135mm; one Triotar F:4, 85mm; one Biotar F:2, 40mm; one Tele Tessar F:6.3, 180mm; one Tele Tessar F:8, 300mm; one Tessar F:4, 28mm; also leather case, multiple view finder, filters, sunshades, etc., entire equipment new; make best offer, write Box 269 American Cinematographer.

NEW MODEL 21 VICTOR 16mm Projectors in beautiful walnut case; 750 watt, for 1600 ft. reels, \$99.50 each. Write for circular and other bargains. Fromaders, Davendorf, Iowa.

PRESS CARDS For the freelance photographer, 25c. General News Box 25M, West Farms Station, New York City.

MITCHELL CAMERA, guaranteed condition. Studio equipped. Write for description. \$2750. & \$3500.

BELL & HOWELL CAMERA, fully equipped, original B & H Movement, \$1150.

AKLEY CAMERA, 3 Lenses; "2"-3"-12", 4 Magazines, Akley Tripod, Cases, etc. \$800.

We buy and sell used equipment of every description. Write us your needs.

CAMERA SUPPLY CO.
1515 North Cahuenga Blvd.,
Hollywood, Calif.

SILENT BELL-HOWELL CAMERA equipped with Fearless Quick Focus Shift and silent Fearless high speed movement; 4 fast lenses; 4-1000 ft. magazines, matte box, 2 motors, friction head tripod, etc. This silent camera does not require blimp. Ideal for color. Price fully equipped \$1,500.00. Fearless Camera Co., Hollywood, Calif.

WANTED

WANTED. We pay cash for every photographic. Send full information and lowest cash prices. Hollywood Camera Exchange, 1600 Cahuenga Blvd., Hollywood, Calif.

WE PAY CASH FOR YOUR USED CAMERA, LABORATORY AND STUDIO EQUIPMENT.

Write, wire or cable
MOTION PICTURE CAMERA SUPPLY, INC.
723 Seventh Avenue, New York City
Cable Address: Cinecamera

WE WANT TO BUY

All types of Cameras

We pay the highest cash prices for Mitchell, B & H, Akley, DeBrie, Eymo and other makes of cameras and camera accessories. We also want tripods, motors, magazines, cutting room and laboratory equipment. Tell us what you have! Get our price offer!

NEW YORK CAMERA EQUIPMENT, INC.
1600 Broadway New York City

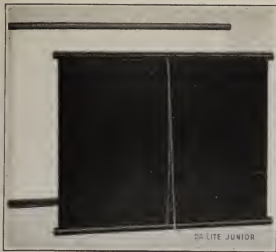
CINEMATOGRAPHIC ANNUAL

Volume 1

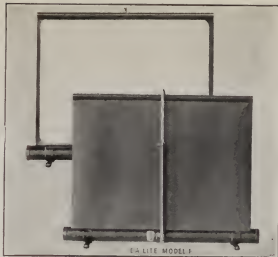
The greatest work on Cinematography as practiced in Hollywood ever published.

Now, \$2.50

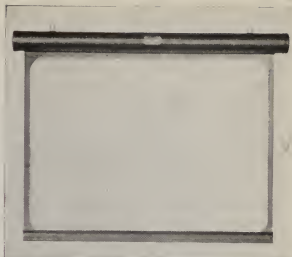
AMERICAN
CINEMATOGRAPHER
1782 North Orange Drive



Junior Model. On roller, with separate *new-type* spring wire support. 4 sizes at new low prices from \$2.50 to \$6.00.



Model F. In metal case with pivoted, rubber-tipped feet. Has single collapsible support and non-sag top slat. 6 sizes, 22"x30" to 52"x72" incl. From \$12.00 up.



Model B. Metal case protects screen when not in use. 12 sizes, 22"x30" to 63"x84" inclusive. From \$8.00 up.



REG. U. S. PAT. OFF.

Look for this Mark when you buy Screens!



The Standard Challenger can be set up anywhere. Check these exclusive features: 1. Fully opened screen adjustable in height to any of three positions. 2. Square center rod on tripod and rigid top slat to hold entire screen in perfect alignment. 3. Handle mounted on sturdy band, encircling case.

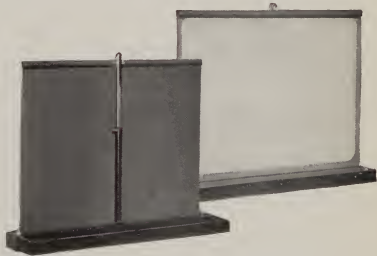
30"x40"—New Reduced Price \$15.00
36"x48"—New Reduced Price \$20.00
39"x52"—New Reduced Price \$25.00
52"x52"—(New Size) Price \$30.00

Simplify projection with a Challenger Screen and Da-Lite Projector Stand!



Da-Lite Has the Screen You Need

Here are a few of the many models in the world's largest line of projection screens. *Surfaces are glass-beaded, unless white or silver is requested.* See these Da-Lite values at your dealer's! Write for literature and new low prices now! Da-Lite Screen Co., Inc., 2721 N. Crawford Ave., Chicago, Illinois.



The New Deal. The leading value in moderately priced box screens. Single collapsible support. 10 sizes from 22"x30" to 72"x96" incl. From \$15.00 up.

Deluxe Challenger. For larger pictures. Screen is raised by crank and gear. Folds compactly, same as standard model. 1 sizes, 43"x60" to 70"x94" inclusive. From \$45.00 up.

Model C. For showings to large groups. Mounted on spring roller on back board, equipped with brackets for hanging on wall or on Da-Lite Super Tripods. 8 sizes, 6'x8' to 12'x12' inclusive. Without metal cover, from \$45.00 up. With cover, from \$53.00 up.

*Quality Screens for More than
a Quarter of a Century*

DA-LITE SCREENS AND MOVIE ACCESSORIES

*If undecided about
that new camera
equipment bear in
mind you can't go
wrong on a*

MITCHELL

Standard for 16 Years

*It stands the gaff
and makes it easy
for the staff*



Mitchell Camera Corporation

665 N. ROBERTSON BOULEVARD
WEST HOLLYWOOD, CALIF.

Cable Address "MITCAMCO"

Phone OXford 1051

BELL & HOWELL CO., LTD., London, England
CLAUD C. CARTER, Sydney, Australia
D. NAGASE & CO., LTD., Osaka, Japan

AGENCIES

MOTION PICTURE CAMERA SUPPLY, INC., New York City
BOMBAY RADIO CO., LTD., Bombay, India
H. NASSIBIAN, Cairo, Egypt
